IN THE

Supreme Court of the United States

OCTOBER TERM, 1941.

No. 265

FEDERAL POWER COMMISSION AND ILLINOIS COMMERCE COMMISSION,

Petitioners,

vs.

NATURAL GAS PIPELINE COMPANY OF AMERICA AND TEXOMA NATURAL GAS COMPANY,

Respondents.

No. 268

NATURAL GAS PIPELINE COMPANY OF AMERICA AND TEXOMA NATURAL GAS COMPANY,

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FEDERAL POWER COMMISSION AND ILLINOIS COMMERCE COMMISSION,

Respondents.

REPLY BRIEF FOR NATURAL GAS PIPELINE COMPANY OF AMERICA AND TEXOMA NATURAL GAS COMPANY.

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REPLY BRIEF FOR NATURAL GAS PIPELINE COMPANY OF AMERICA AND TEXOMA NATURAL GAS COMPANY.

Cross-petitioners do not agree with the statement of the questions in the brief of the Commission and complainant. In particular, they do not agree with the statement of question 3 (Brief, p. 2), in which the Commission and complainant omit to state that the Commission's order

required that the new schedules be put into effect immediately, with prospective retroactive approval or disapproval; and of question 4, on the same page, in which they repeat the erroneous statement persistently made by the Commission and complainant that cross-petitioners contend that a *separate* allowance must be made for going concern value. The Commission and complainant fail to mention the issue of whether or not there is substantial evidence to support the Commission's finding that the present rates are unreasonable. They also fail to mention the alternative question of whether or not in the event the Commission's order should be sustained, cross-petitioners should be required to refund the ordered reduction in revenues accrued since the effective date of the Commission's order.

The statement of facts by the Commission and complainant contains erroneous assertions which are contrary to the record and numerous assertions which are utterly irrelevant to the issues here.

For the sake of brevity and clarity, cross-petitioners will treat all of the foregoing under the various appropriate headings to follow.

I.

The Commission and Complainant Err in Their Contention That the Natural Gas Act Is Valid as Applied to Cross-Petitioners.

The Commission and complainant assert (Brief, p. 25) that regulation of charges for gas, light, and heat has "traditionally been an appropriate legislative purpose." The fact is that "tradition" has limited legislative regulation of charges for gas, light, and heat to charges of a public utility. Tradition does not have it that prices of a wood-peddler, who chops the trees on his farm in Wisconsin and peddles the wood from door to door in Chicago

for heat, may be fixed. So with candle and kerosene purveyors. The argument of the Commission and complainant proceeds with the assertion (Brief, p. 25) that the regulation of rates charged to the local distributor by gas pipeline companies is "plainly a reasonable if not an essential step" toward protection of the public against unreasonable charges for gas, light, and heat. By the same token, regulation of the prices of steel, furniture, valves, pipe, pencils, etc., purchased by the local distributor of gas is "reasonable if not essential."

The sweeping character of the contentions of the Commission and complainant is apparent. They urge this Court to do what it has consistently refused to do, and they go far beyond the limitations imposed by the Constitution. The Commission and complainant assert that price fixing is proper, provided that it bears "a reasonable relation to a proper legislative purpose" (Brief, p. 24). The "reasonable relation" found by this Court in the cases cited by the Commission and complainant (Brief, pp. 24, 25) is entirely absent in this case. All of the cases there cited are discussed and distinguished in cross-petitioners' original brief (pp. 241-243), with the exception of *U. S.* v. *Darby*, 312 U. S. 100. In that case, the legislation prohibited the shipment in interstate commerce of goods made under substandard labor conditions. The act there involved set up minimum wages and maximum hours. The prescribing of minimum wages is a far cry from the fixing of commodity prices in a private business.

II.

The Contention That the Commission Had Jurisdiction and Authority to Enter an Interim Order Is Erroneous.

The Commission and complainant urge in support of the interim order that Congress "evidently" intended the Commission to have this "salutory" power (Brief, p. 29).

The Commission and complainant disregard the settled law that the powers of a statutory commission are derived solely from the statute, and that those powers must be conferred "in language free from doubt" or "by language which admits of no other reasonable construction" (Cross-Pet. Original Brief, pp. 217-218). The Commission and complainant urge (Brief, p. 29) that "the construction urged by the companies would serve no substantial purpose for the Commission could legitimately achieve the same result by the cumbersome process of opening and closing a succession of hearings." Cross-petitioners submit that the proper construction of the Act is to be determined from the plain language of Congress, from the legislative proceedings, etc. (See Cross-Petitioners' Original Brief, pp. 219-234), and not by what the Commission could or could not do "legitimately."

Despite the "vast distinction" asserted by the Commission and complainant (Brief, p. 29) between the interim order in the present case and the provisions in the New York and Pennsylvania statutes respecting the fixing of temporary rates, the plain fact is that amendments empowering the Commission to fix temporary rates were rejected by Congress during the proceedings on the legislation resulting in the Natural Gas Act (Cross-Petitioners' Original Brief, pp. 226-234). By rejecting these amendments and failing otherwise to confer such authority, the Congress consciously withheld from the Commission authority to enter an interim order.

III.

The Contention That a Mere Reduction of Profits Is a Compliance With the Act Is Erroneous.

The Commission and complainant assert (Brief, p. 21) that at the time of the entry of the interim order "no one was then concerned" with "the details of a precise sched-

ule" fixing rates. This statement is partly correct. There is no doubt that the Commission was not then concerned with fixing rates; neither was complainant. There is no evidence in the record upon which new rates can be fixed, assuming a finding based on substantial evidence that the present rates are unreasonable. The Commission did not fix reasonable rates among cross-petitioners' various classifications of charges, but sought to cut cross-petitioners' profits to a point barely above the line of confiscation—an error pointed out by Mr. Justice Brandeis, with whom Mr. Justice Holmes concurred, in *Southwestern Bell Telephone Co.* v. *Public Service Commission*, 262 U. S. 276, 296-298. The Commission and complainant assert (Brief, p. 30) that "details" can wait. A subsequent order approving the charges on cross-petitioners' bills regularly rendered after September 1, 1940, would be a retroactive order and invalid under the Act. The present order is clearly invalid. The Commission and complainant seek comfort in the *New England Divisions* case, 261 U. S. 184, 201-202 (Brief, pp. 30-31); but that case does not support their position. In that case the Interstate Commerce Commission fixed by order how much of the joint rate should go to carriers east of the Hudson River and how much to carriers west of the Hudson River. The subdivisions for the east and the subdivisions for the west were likewise fixed "in the same proportions as at present or otherwise as they (the carriers) may agree, or failing such agreement, as may be determined by the Commission upon application therefor" (p. 202).

The Commission and complainant cite (Brief, p. 31) *Driscoll* v. *Edison Co.*, 307 U. S. 104, 107, for the proposition that a mere reduction in profits is "accepted practice." The opinion in that case indicates otherwise. This Court stated the facts in part as follows (pp. 107-108):

> "Acting under Sec. 310, the commission, after notice and argument, issued a temporary rate order on July 13, 1937, requiring the utility to file rate schedules

which would effect a reduction of approximately $435,000 in annual gross operating revenues. This order was replaced by another on July 27, 1937, which commanded an identical reduction. *This time the commission itself prescribed a schedule of rates.*" (Italics ours.)

The Pennsylvania statute there involved required the commission to "fix, determine, and prescribe * * * rates" (307 U. S. 110, footnote 9).

IV.

A. Cross-Petitioners' Reply to the Contention That the Commission Properly Refused to Make a "Separate" Allowance for Going Concern Value.

1. The Facts on Which the Claim Is Based.

In their brief the Commission and complainant repeatedly assert that cross-petitioners complain because the Commission refused to make a "separate" allowance for going concern value (Brief, pp. 2, 13, 16, 17, 19, 39-68). Cross-petitioners pointed out in their original brief (p. 68) that this is not a correct statement of the question presented. Cross-petitioners are not complaining because the Commission refused them a *separate* allowance for going concern value; their complaint is that the Commission made *no* allowance for going concern value, notwithstanding the uncontradicted evidence showing clearly that they were entitled to such an allowance.

The Commission and complainant assert that, while cross-petitioners disavow any contention that the physical and intangible values must be separately appraised, "their claim for an allowance additional to that which they claim for the physical properties obviously comes to the same thing." The effect of this contention by the Commission and complainant is to deny the existence of any such ele-

ment of value as that commonly referred to as going concern value, notwithstanding the fact that this Court and every court in the country, so far as we are advised, have recognized for generations that going concern value is an actual element of value just as real as the value of a building, a compressor unit, a joint of pipe, or any other physical element going to make up a great plant like that of cross-petitioners. Not only would the Commission and complainant have this Court overrule and set aside the hundreds of decisions of this Court and other courts, both Federal and state, to the effect that, where such value exists and is proven, it must be allowed as a part of the rate base, but they would also have this Court blind its eyes to a generally well-recognized fact and hold that there is no such element of value!

In the discussion of this subject in their original brief cross-petitioners have cited many cases, including several of the very cases on which the Commission and complainant rely, in which this Court has held that upon proof of its existence going concern value has a place in the rate base. *Dayton Power & Light Co.* v. *Public Utilities Commission*, 292 U. S. 290, 308; *Columbus G. & F. Co.* v. *Public Utilities Commission*, 292 U. S. 398, 413; *Los Angeles G. & E. Co.* v. *Railroad Commission*, 289 U. S. 287, 313-14, 316. The cases are uniformly to the effect that this real, though intangible, value is something in excess of the *aggregate of the value of the separate pieces of tangible property. Adams Express Co.* v. *Ohio State Auditor*, 166 U. S. 185, 219.

As pointed out in cross-petitioners' original brief, the witnesses who appraised the physical properties, including the gas leases, of cross-petitioners dealt with the value or cost of reproducing the "separate pieces of tangible property." They expressly excluded from their figures any intangible value incident to the circumstance that these separate pieces of property had been put together into an assembled whole. In adopting the testimony and figures of

these witnesses, the Commission necessarily excluded this intangible value, and the cost to cross-petitioners of acquiring this value (Original Brief, pp. 69-75). It is true the Commission used the expression that the rate base allowed was liberal and that it had allowed more than an adequate amount to cover all elements of value; but this language of the Commission must be read and construed in the light of the context of its opinion (R. Vol. VIII, pp. 3936-7), which, as pointed out by the court below (R. Vol. VIII, p. 4039) shows clearly that the Commission refused to recognize going concern value as an element to be considered, and that it consciously excluded from its consideration in arriving at the rate base any allowance for such intangible value.

The desperate attempt which the Commission and complainant are now making to show that such element of value was included in the rate base clearly implies a recognition that proof of the existence of this element of value was established by the evidence. With or without such admission, the evidence does establish as a matter of law the existence of such value and the cost of establishing that value. The language in their brief (p. 40) to the effect that cross-petitioners claim the right to capitalize costs allegedly incurred during the early period of operations until the development of *subsequent capacity* is misleading. Cross-petitioners are not making any such contention. Their contention is that, having provided the capacity at the time the pipeline was completed to transport 175 million cubic feet of gas daily, they are entitled to capitalize the costs incident to holding the unused portion of the capacity of their facilities until the market could be developed up to such original capacity. In other words, cross-petitioners had the capacity, which it was necessary from considerations of ordinary business prudence to provide in advance of the actual development of their markets; but they were not able to use this capacity until the markets were developed, and they

sustained actual costs incident to maintaining this capacity and building up their market outlets to the amount of $8,500,000. In their discussion the Commission and complainant in effect admit the existence of the facts upon which cross-petitioners rely as the basis of their claim, but stand on the alternative and inconsistent contentions either that the Commission, contrary to what it said in its opinion, did make an allowance for going concern value, or that no going concern value exists, notwithstanding the uncontradicted evidence.

The Commission and complainant again call attention (Brief, p. 40) to the fact that allowances were made in the rate base for overhead, interest, taxes, administrative, legal and supervisory charges, and expenses of preliminary operations during the construction period. It is true that such allowances were made. They were clearly proper in the light of the decisions of the courts and regulatory commissions and the practice of regulated companies from time immemorial. The basis of the allowance is clear. The regulated company is using none of its facilities during the period of construction, and, unless compensated in the rate base for interest, taxes, and other charges above enumerated, it would absolutely lose those costs. The courts have recognized that it should have no such burden imposed upon it and have uniformly approved the capitalization of such costs. Far from being a reason why the contention of cross-petitioners as to going concern value should be refused, the proper allowance of these items is an unanswerable argument for the allowance of cross-petitioners' claims here presented. This is evident, for all of these claims are based upon actual costs incurred by cross-petitioners on account of that portion of their facilities and capacity not yet put into use. There is no more basis for imposing on cross-petitioners the burden of losing these costs incurred in connection with facilities and capacity provided in advance of use after they commenced

limited operations than for imposing such burden upon them during the period of construction. *Pioneer T. & T. Co.* v. *Westenhaver*, 118 Pac. 354, 360-1; *State* v. *S. W. Bell Tel. Co.*, 223 Pac. 771, 782-3; *Monroe Gaslight & Fuel Co.* v. *Michigan Public Utilities Commission*, 11 Fed. (2) 319, 322.

The Commission and complainant observe that the claim is not limited to the two-year period when the companies were operating at a loss but embraces the entire period during which cross-petitioners were not operating at their full capacity. Why should it be limited to the first two years of their operations? Cross-petitioners are not trying to capitalize losses, but *costs* incident to maintaining this unused capacity and to the building up of their market outlets to the original capacity. These costs have no relation to profits or losses.

The observation of the Commission and complainant (Brief, pp. 41-2) that on cross-examination the witness Emery conceded that the going value, referring to the elements of cost forming the basis of such value, would have been correspondingly increased if operating charges had been greater because of inefficiency, or if the costs in terms of interest and taxes had been larger, or if the existing depreciation had been greater than that shown by the evidence, begs the question. There is absolutely no evidence that the operating charges, the interest, the taxes, or the other elements of cost involved were excessive. The evidence establishes the contrary. The Commission would have full power and authority to deal with any such excessive costs, and to reduce the allowance to costs which were reasonable, should it appear that any of these costs were improperly incurred. It is the universal practice to reimburse a lawyer who travels to a distant city on business for his client for the reasonable and necessary expenses incurred on the trip. Would his client be justified in refusing to allow a reasonable and proper bill for such

costs on the ground that if the attorney had been less efficient and had thus spent more time on the trip than was necessary, or if he had been a scoundrel and had included items of cost which were not actually incurred, his bill would have been too high?

The Commission and complainant again beg the question in asserting (Brief, p. 42) that the claim of cross-petitioners that they should be permitted to capitalize the development costs as a part of the rate base is absurd because there was never any real risk that such costs would not be amortized out of subsequent earnings or any real potential difficulty in creating a sufficient consumer demand within a short period. The record presents no basis for any claim that cross-petitioners did not develop the consumer demand as rapidly as it could be developed, or that they incurred any unnecessary costs in connection with its development. Of course they hoped to amortize this cost over the life of their natural gas reserves; but their hopes were based upon probable earnings over the whole period on the basis of private contracts, which were made long prior to regulation under the Natural Gas Act.

The fact that one of the principal ultimate purchasers of natural gas transported by cross-petitioners is a minority stockholder of cross-petitioners is utterly beside the issue. This is true also of the observation (p. 42) that in their early estimates submitted to the Illinois Commerce Commission in 1931, a witness, who happened at one time to have been a director of cross-petitioners, testifying for another company, expressed the opinion that over the whole period of their operations cross-petitioners would realize an average return of only 6.2%. The Commission and complainant wholly ignored the fact, though the record shows it, that this testimony was offered in the latter part of 1931 and was based on the observation made in the same connection that at the time the project was conceived, and at the time the owners put their money into the project,

they did not realize that the economic depression which had befallen the country beginning in 1929 would continue indefinitely. The fact that one of the former directors of the companies at the time he testified did not expect a return, over the whole period, of more than 6.2% is no evidence of what cross-petitioners and their owners expected or hoped at the time they put their money into the project, nor can it be said with any degree of certainty, with the conditions now confronting this country, that even in the absence of regulation they would be able to earn 6.2% over the period ending with the exhaustion of their gas reserves.

The argument beginning on page 43 of the brief of the Commission and complainant based on the earnings and rate of return during the years 1936 to 1938 is as misleading as it is irrelevant. *Why did the Commission and complainant go to the trouble to set out the figures and the rate of return over only this three years' period, 1936 to 1938?* The exhibits from which they took the figures set out in the footnote on page 44 show the same data for the entire period 1932 to 1938, inclusive. Their reason for selecting the figures of only three years appears at once upon an examination of the figures for the whole period. If the whole period be considered, the item, "Total Undepreciated Cost of Property, Plus Working Capital," shown in the footnote as $181,109,414.72 for the years 1936 to 1938, turns out to be $426,963,939.83 (Exhibit 137, p. 2, line 20, R. Vol. VII, p. 2993; Exhibit 141, R. Vol. VII, p. 3025). The item "Total Net Earnings Available for Return (1936, 1937 and 1938)" in the footnote becomes $34,040,882.34 for the period 1932 to 1938 (Exhibit 136, p. 1, lines 5, 9, 10 and 11, R. Vol. VII, p. 2959), and the "Average Return on the Undepreciated Rate Base (%)" *is not 11.9% but 7.9%*. Also the "Net Earnings Available for Return, Less $8,500,000 Claimed by the Companies for Going Value" turns out to be $23,540,882.34, and the "Average Return

on Undepreciated Rate Base After Deducting from the Return the Total Amount Claimed for Going Value (%)" turns out to be, *not 7.28 %, but 5.5%*. Thus it appears that during the period prior to regulation the earnings of cross-petitioners fell far short of an aggregate sufficient to return to cross-petitioners their costs in the amount of $8,500,000 and a return of 6½% per annum, the rate of return allowed by the Commission!

But their whole argument on this point is irrelevant. Since during the years prior to the enactment of the Natural Gas Act cross-petitioners were an unregulated concern, engaged in a strictly private enterprise, their earnings belonged to them. Notwithstanding a manifest desire to do so, as evidenced by the argument now under discussion and by other similar efforts to defend the order on account of the earnings record of cross-petitioners prior to regulation, the Commission is without jurisdiction to exercise any control over the disposition of the revenues earned by cross-petitioners prior to the enactment of the Natural Gas Act. It has no more power to exclude from the rate base, and from the amount to be amortized, this $8,500,000, representing costs which cross-petitioners are entitled to capitalize, on account of the earnings record of cross-petitioners during the period prior to regulation than it would on that account to exclude from the rate base the interest, taxes, and other similar charges during construction, or the compressor units utilized by cross-petitioners in transporting their gas, or the gas wells from which cross-petitioners produce their natural gas. Cross-petitioners are entitled to a return of this $8,500,000, and in addition thereto they are entitled to earn a reasonable return on that amount pending its return. This right the Commission must effectively recognize by placing the amount in the rate base and in the amount to be returned through amortization just as it must handle any other proper capital assets. *Board of Public Utility Commission* v. *New York Tel. Co.*, 271 U. S. 23, 31.

In the footnote beginning on page 45, the Commission and complainant state that cross-petitioners admit that their average annual earnings for the first seven years of operation were in excess by $1,234,118.88 of the annual amount allowed by the Commission. The statement in cross-petitioners' brief to which they refer was in no sense an admission. It was a statement in connection with an argument going to the rate of return allowed; and it must be read in the light of the contention by cross-petitioners in the same connection that the amount allowed by the Commission is grossly inadequate by a sum greatly in excess of $1,234,118.88.

2. The Decisions of This Court Dealing With the Right to an Allowance for Going Concern Value.

In their argument on this point (Brief, p. 46) the Commission and complainant admit that this Court has held in the *Dayton* case and in the *Los Angeles Gas Company* case that "'going value' must be considered by the rate-making agency 'upon proof of its existence.'" They then refer to the *Columbus*, *Dayton*, *Denver Stockyards*, and *Des Moines* cases as authority for the proposition that a separate or additional allowance for such value is not required where the physical assets have been appraised "as part of an assembled whole." Cross-petitioners have no quarrel with this principle. Their complaint is that because the Commission did not allow going concern value as an element entering into its consideration of the rate base, which it did not, as clearly appears from its opinion, the Commission did not value cross-petitioners' properties as part of an assembled whole. Nowhere in its discussion of this subject in its memorandum opinion (R. Vol. VIII, pp. 3935-7) does the Commission assert, or even intimate, that it is adopting as a part of the rate base the fair value of cross-petitioners' properties "as part of an as-

sembled whole." *After rejecting and "disallowing" cross-petitioners' claim for $8,500,000 as going concern value,* and also the allowance sought by cross-petitioners under the principle of average investment for necessary capital additions after the end of 1942, which will be required in order to carry on their present volume of business, the Commission then added: "We are convinced that we are allowing in our rate base more than an adequate amount to cover all elements of value" (R. Vol. VIII, pp. 3936-7). It then enumerates these elements of value and accepts and adopts the figures submitted by cross-petitioners' witnesses for four separate items:

"Reproduction cost new of physical properties (exclusive of gas reserves)	$56,302,250
Value of gas reserves	13,334,775
Capital additions for the period June 1, 1939, to December 31, 1942	3,808,399
Working capital	975,000
Total	$74,420,424"

As pointed out above and in cross-petitioners' original brief (pp. 69-74) and by the court below in its opinion (R. Vol. VIII, p. 4039), these items did not include any allowance for intangible value, but expressly excluded any such intangible value. The figures for the physical properties other than gas reserves clearly constituted the aggregate or total cost of reproducing the separate pieces of tangible property, and not as parts of the assembled whole (R. Vol. II, p. 1236). The figures as to leases clearly referred to the value of these leases aside from the consideration that they were connected up to cross-petitioners' pipeline system (R. Vol. III, p. 1355). The effect of the Commission's opinion was to accept cross-petitioners' evidence, which was not disputed, as to the aggregate value of the separate pieces of tangible property, based on reproduction cost new, the present value of the reserves,

treated as separate pieces of tangible property, the cost of capital additions through the year 1942, and the working capital. The Commission went no further than that. In excluding the going concern value as an element to be considered, the Commission in effect held that only the reproduction cost new of the separate pieces of tangible property, including the gas reserves, the cost of future capital additions, and the working capital were proper elements of value to go into the rate base, and that it was not proper to include in the rate base the value of the physical properties as part of an assembled whole.

There is no basis for the argument (Brief, p. 47) that the rationale of the decisions is that when the physical properties and incidental rights have once been appraised, both as to primary valuation and deduction for depreciation, the result in itself reflects a going concern value. The effect of these decisions is nothing more nor less than a holding that when the regulatory body arrives at a rate base equal to present value, including going concern value, which the Commission clearly did not take into account, then the regulated company is not entitled to an additional allowance for going concern value. There can be no question of the soundness of that holding, for the regulated company is not entitled to a double allowance for going concern value; but the Commission cannot exclude it as an element and add up the reproduction costs or the value of the separate pieces of tangible property with no allowance for the circumstance that they are parts of an assembled whole, and then, when confronted with the established law, avoid the consequences of its rejection by asserting that it did take into account this intangible value. Under the hypothesis of the Commission and complainant there never could be any value assigned to the property of a going concern, such as cross-petitioners, in excess of the aggregate of the values of the sep-

arate pieces of tangible property. The fallacy of such a hypothesis is clearly demonstrated by the opinions of this Court over and over again. *Adams Express Co.* v. *Ohio State Auditor*, 166 U. S. 185, 189.

There is no merit in the suggestion that, but for the fact that cross-petitioners are a going concern, the separate pieces of their physical property would have no value except as salvage. Value for rate-making purposes does not require that there be a market value for each piece of separate property at the place where located equal to the cost of acquiring and installing it. On the other hand, value, as that term is used in the rate-making process, is based upon several elements, as this Court has held from the time of its decision in *Smyth* v. *Ames* down to the present time. These elements include cost of reproduction new of the separate pieces of tangible property, the original cost of those separate pieces of tangible property, the intangible element of going concern value, and other elements which may arise in a particular case, and which in the aggregate reflect the worth or value of the property to one who would take it and use it as an assembled whole.

It is manifest that one desiring to purchase such a project as that of cross-petitioners, or to purchase securities dependent upon the property and earnings of such a project, would find cross-petitioners' property or securities much more attractive now, since they are a part of a concern which has demonstrated its earning power, than they would have at the beginning of 1932 when cross-petitioners first commenced their operations. This added value over the aggregate cost at the present time of the separate pieces of physical property, in the case of cross-petitioners, might well be greatly in excess of the amount claimed here as going concern value; but under the decisions of this Court cross-petitioners are limited as a practical matter to that value which they can demonstrate and state in

terms of cost from consideration of the history and circumstances of their particular enterprise. *Dayton P. & L. Co.* v. *Public Utilities Commission*, 292 U. S. 290, 309. Certainly in the case of cross-petitioners that additional value would be equal to the cost actually incurred in acquiring it. The witnesses who testified for cross-petitioners so testified, and their testimony stands uncontradicted. The testimony shows also without contradiction that it would cost at least that much to acquire this going concern value if cross-petitioners were at the beginning of their operations, and the development of their markets now confronted them. It follows, therefore, that in considering the cost of reproducing the properties new, the cost of reproducing this going concern value must be considered along with the cost of the separate pieces of physical property. In considering the original cost of cross-petitioners' properties, the costs incident to developing this going concern value are just as certainly a part of the total original cost as is the cost of each separate piece of physical property utilized by cross-petitioners in their business.

The Commission and complainant assert (Brief, p. 49) that cross-petitioners include "in the cost of attaching business the charges thus attributed to unused capacity during years in which there was no deficit as well as during those in which operating deficits were allegedly incurred, presumably in the view that the utility is entitled as a matter of economic fact and constitutional right to commence operations with a full complement of business instantaneously attached." Cross-petitioners make no such contention, nor do they make any contention which is susceptible of any such construction. The basis of their claim for going concern value has nothing to do with operating deficits. It is based on costs of acquiring business which, when acquired, gave value to cross-petitioners' properties which they would not have had but for the at-

taching of sufficient business to put into use all of their facilities. The Commission and complainant would like to drive cross-petitioners into the position of asking this Court to hold that they are entitled to capitalize past deficits. In their brief in the court below and in their brief here they desperately strive to bring the contention of cross-petitioners in this case within the doctrine of *Galveston Electric Co.* v. *Galveston*, 258 U. S. 388, 394-5.

Cross-petitioners distinguished this case from the *Galveston* case in their original brief (pp. 84-87), and they will not repeat here what they said there. In the same connection they called attention to *Southwestern Bell Tel. Co.* v. *City of Fort Smith*, 294 Fed. 102, 104-6, in which items of the character here urged in support of the claim for going concern value were expressly held to be of an entirely different character from those rejected in the *Galveston* case. They also pointed out that this Court affirmed the trial court in *City of Fort Smith* v. *Southwestern Bell Tel. Co.*, 270 U. S. 627, citing as authority several decisions, including the *Galveston* case. The Commission and complainant seek to void the controlling effect of the two cases last cited on the theory that this Court affirmed the trial court on some other ground; but cross-petitioners submit that there is nothing in the one sentence *per curiam* opinion of this Court affirming the decision of the court below which justifies any such conclusion.

Cross-petitioners do not contend that the Constitution guarantees them the *ability* to earn a fair return or the *ability* to reach their full earning capacity immediately or at any time. They do submit, however, that the Constitution guarantees to them the *opportunity* to earn a fair return upon the proper rate base, which must include an allowance for the costs paid out of pocket in connection with the development of their markets to the point where the full capacity of their facilities was put into use.

The Commission and complainant quote from the opinion of this Court in *Los Angeles Gas Co.* v. *Railroad Commission*, 289 U. S. 287, 313, in which this Court aptly held that, "Deficits in the past do not afford a legal basis for invalidating rates otherwise compensatory *any more than past profits can be used to sustain confiscatory rates for the future.*" (Italics ours.) Cross-petitioners recognize the validity of all that is said in the language quoted. They are not here contending for an additional allowance because of the losses and deficits sustained during the first two years of their operations. The Commission and complainant are quick to invoke and seek to apply the first part of this language; but manifestly they do not feel themselves bound by the italicized portion thereof. As already pointed out, they would deny cross-petitioners an allowance for going concern value on the ground that their past earnings would have enabled them, prior to regulation, to amortize the costs forming the basis of this value. They dwell at length in their statement of the facts (pp. 8-11) on the dividends and earnings history of cross-petitioners during the period prior to regulation. There is no basis for their repeatedly adverting to the earnings of cross-petitioners prior to regulation except that they would have this Court allow such past earnings to influence it in considering the validity of the Commission's order here under attack. In the consideration of other questions presented here it will be necessary to point out other instances in which the Commission and complainant fall back on past earnings in an effort to justify the order of the Commission.

3. The Contention of the Commission and Complainant That, on Principle, the Inclusion in the Rate Base of an Allowance for Going Concern Value Is Not Required by the Constitution.

Under this contention the Commission and complainant assert (Brief, p. 54) that cross-petitioners suggest "that in view of the confusion in regulatory practice resulting from the ambiguities in the opinions of this Court, the subject of going concern value in rate regulation should now be reviewed on principle." Cross-petitioners make no such suggestion, nor do they concur in the view of the Commission and complainant that any confusion in regulatory practice has resulted from "the ambiguities in the opinions of this Court."

As pointed out in cross-petitioners' original brief (pp. 74, 84-98), this Court has consistently held that going concern value must be allowed as a part of the rate base where there is proof of its existence, and that going concern value is protected as property by the due process clause. In other cases the Court has held that the proof of going concern value must be definite and that it must be consistent with the history of the particular enterprise. Its holding in the *McCardle* case that there must be a separate allowance for or a separate consideration of going concern value in addition to the value of the separate pieces of physical property is in no sense inconsistent with its holding in the other cases cited by the Commission and complainant (Brief, pp. 55-6) that where there has been a valuation of the property as a whole, as contrasted with a valuation of the separate pieces of its physical property, no additional allowance for going concern value is required. This Court has also refused to set aside orders of regulatory bodies on account of a failure to allow going concern value based on speculative opinion evidence which has no relation to the experi-

ence or history of the enterprise, particularly where the regulatory body in its opinion and order claimed to have given effect or consideration to going concern value in arriving at the present fair value of the properties viewed as an assembled whole, and there was no positive proof in the record that the Commission did not in fact so consider it.

The confusion that has developed is traceable, not to any ambiguity in the decisions of this Court, but to the refusal of some commissions to recognize and give effect to the law and to the constitution in conformity with the pronouncements of this Court on the subject. It was of this refusal, and of the efforts of some commissions deliberately to circumvent a review by the courts of the refusal, to allow or consider going concern value in fixing the rate base and the amount to be amortized on which cross-petitioners commented in their original brief (p. 88).

The Commission and complainant (Brief, p. 56) ask this Court now to hold that "inclusion in the rate base of going concern value of customers attached is not required under any permissible theory of rate regulation." Cross-petitioners are not seeking to capitalize the "going concern value of customers attached," as stated by the Commission and complainant, but rather the added value to the *properties* of cross-petitioners resulting from actual expenditures in defraying the costs in connection with maintaining unused facilities during the period of attaching customers and the costs of promotional activities in procuring customers. Such a holding as that requested by the Commission and complainant, cross-petitioners submit, could not be justified any more than could a holding that the value of gas leases, of steel pipe, of compressor units, of rights of way, or any other element of value, shall be excluded from the rate base and the amount to be amortized. So long as the Fifth and Fourteenth Amendments continue in the Constitution, no regulatory body can deprive cross-petitioners of the value of their property

or take the same for public use without due process of law and without just compensation. Due process requires that the Commission ascertain all the elements of value and give effect to all the elements of value, the going concern value no less than any other element of value; and just compensation requires that the Commission allow earnings sufficient to provide for the return of this value over the period of service for public use and to pay a reasonable return thereon during such use. *Board of Public Utility Commissioners* v. *New York Tel. Co.*, 271 U. S. 23, 31. The request of the Commission and complainant for a holding that inclusion in the rate base of going concern value is not required is nothing short of a request that this Court ignore and refuse to be governed by the Constitution!

The Commission and complainant start out (Brief, p. 56) on the alleged premise that any value attributable solely to the monopoly position of the regulated company need not be included in the rate base. In the first place, cross-petitioners deny that they occupy a monopolistic position. As pointed out in their original brief (pp. 40-41), the record shows that cross-petitioners are in keenest competition with electricity, coal, oil, and other fuels. In the second place, the going concern value claimed is not attributable to any alleged monopolistic position. It is attributable solely to costs incurred in connection with maintaining and holding in readiness temporarily unused facilities and capacity until the market could be developed, and in advertising and other promotional costs[1] incident to

[1] Due to difficulties in procuring customers to change over to natural gas, the volume handled in 1933 was less than in 1932. To meet this situation cross-petitioners made cash contributions to the new business activities on the part of the utilities purchasing gas from cross-petitioners at wholesale (R. Vol. II, p. 677). These contributions and other load building expenditures aggregated $1,567,791 (R. Vol. III, p. 1329).

In addition, cross-petitioners made contributions to the load building campaigns of their purchasers by furnishing natural gas under special contracts for limited periods of time at concession prices (R. Vol. II, p. 677). Such contributions, however, were not included in the figures making up the claim for going concern value.

procuring those using some one or more of the other fuels with which cross-petitioners are in competition to utilize natural gas as fuel. If cross-petitioners enjoyed a monopolistic position, that position would tend to reduce, and not increase, such costs, for the reason that but for the competitive fuels it would be comparatively easy for cross-petitioners to induce potential users of natural gas to utilize their commodity. The whole argument of the Commission and complainant on this point falls of its own weight. It is absurd to assert that the allowance in the rate base and the amount to be amortized of the costs forming the basis of this claim for going concern value is an evil caused by the monopolistic position of cross-petitioners. *Indeed, these costs resulted from the fact that there was competition and not from a lack of it.*

The second alleged premise presented by the Commission and complainant (Brief, pp. 57-60) is that any value which is based, directly or indirectly, on the earning power of the regulated company need not be included in the rate base. The discussion is purely academic for the reason that it has no application to the facts presented by this record, it appearing, as just pointed out, that the costs were incurred in connection with overcoming sales resistance caused by the presence of competitive fuels and had nothing to do with the earning power of cross-petitioners. Cross-petitioners are not asking the allowance of going concern value *because* of their earning power. They are not asking the allowance of that value which their earning power has created as a part of the rate base or the amount to be amortized. They are asking only for the value, which has been added to their separate pieces of physical property by reason of out-of-pocket costs incurred during the period of development in maintaining temporarily unused facilities and in promoting the sale of their commodity. A prospective purchaser of the properties or of securities would recognize the added value created by these expenditures for the rea-

son that, but for the fact that they were incurred and the business thus put on a going basis, it would be necessary now to incur these expenditures in order to put the facilities into full use. *In other words, the value claimed exists because these costs were incurred and paid and because they will not have to be paid now or in the future in order to put the business on a going basis.*

The argument of the Commission and complaint (Brief, p. 61) that any item of present value based on good will should be excluded is wholly academic. Cross-petitioners are presenting no claim for an allowance in the rate base or in the amount to be amortized for the element of good will.

The Commission and complainant take the position (Brief, p. 63) that the cost of bringing the business to the state of a going concern "is obviously not a proper item in a 'present fair value' rate base measured by reproduction cost new, for reproduction cost new seeks to establish value irrespective of historical cost." They confuse the terms "present fair value" and "reproduction cost new." The terms are not synonymous. If by "reproduction cost new" they mean the reproduction cost of the separate pieces of physical property, such reproduction costs fall short of the present fair value, for present fair value contemplates the value of the property as a part of a going concern, which necessarily includes its intangible or going concern value. Reproduction cost new is only one of the elements or factors to be considered in arriving at present fair value. It is entirely proper for the regulatory body to consider also the historical cost of separate pieces of physical property. By the consideration of the two factors or elements together, the Commission can and should adjust the historical cost figures to prevailing conditions as reflected by the costs of material and labor entering into the purchase and installation of the separate or component parts making up the whole. But neither the reproduction

cost new nor the historical cost of the component parts making up the whole presents the entire picture necessary to arrive at present fair value. If it appears, as in the present case, that included in the historical cost of building up that which the regulated company owns, necessary costs were incurred after the commencement of business for the purpose of putting the business on a going basis, such costs are just as directly a part of the historical costs as the cost of pipe, engines, gas wells, or any other physical property utilized. In calculating the reproduction cost of all the elements of value belonging to the property of the regulated company, it is likewise necessary to ascertain the reproduction cost which would have to be incurred in order to put the business on a going basis if it were now at the beginning of its operations.

The theory of the Commission and complainant (Brief, pp. 63-4) that, unless there were the actual and continuous demand for services, there would be no justification in assuming the reconstruction of cross-petitioners' property, and that the valuation of the properties presupposes the existence and continuance of the present demand without requiring a development period, discloses a woeful lack of understanding on their part of the practical obstacles confronting cross-petitioners at the time they built and put into operation their pipeline system for the purpose of selling gas in competition with the other fuels then in general use in the territory now served by cross-petitioners. A similar lack of comprehension is disclosed in their observation that the valuation assumes that the actual operating organization is immediately available and that the existing demand and ability to supply the demand through a suitable organization are already predicated when the physical elements are assumed to be reproduced, and that, therefore, there need be no further expenditures to develop the demand or the efficiency to supply it. In other words, their contention is that, because at the time of the reproduction

cost study the lines were loaded, a continuing demand was present, and the companies were manned with an organization capable of producing and delivering gas to the full capacity of the facilities on an efficient basis, cross-petitioners would be entitled to have no greater allowance in the rate base and in the amount to be amortized than the value of the separate pieces of physical property going to make up the plant.

On this theory why include the latter? It is true cross-petitioners have developed their business to the point where they have a continuing demand for all the gas they can deliver through their facilities. It is also true they have assembled, trained and organized a personnel of such exceptional training, competence and efficiency as that they have accomplished the unheard of in the production of natural gas and the transportation of that commodity over long distances to market. But it cost cross-petitioners a lot of money to put this business on that basis, and the cost or value of converting an assembly of physical components into a system such as cross-petitioners now own and operate is just as certainly a part of the property which the Natural Gas Act subjects to the public use as the cost or value of any physical facility belonging to the system. Under the theory of the Commission and complainant, why make any allowance for the value of gas wells, the pipeline, the compressor stations, the rights of way, or any other of the physical properties? Cross-petitioners already have these things and can go on delivering gas throughout the life of their gas reserves without reproducing them. They have no more occasion now to reproduce these physical facilities than they have to reproduce their operating organization or to reproduce the intangible or going concern value through which they converted their business from its small beginning into a business employing the full capacity of their facilities.

Next the Commission and complainant contend (Brief, p. 64) that "If the 'investment' rather than the 'present

fair value' test is used, there can of course be no allowance for going concern value considered simply as the amount of the total value of a going concern over and above the physical and tangible properties." They assert that this is a value concept which has no place in a rate base measured by actual cost. The observation is academic, for cross-petitioners submit that the going concern value for which allowance is here sought is a cost concept and must be taken into account in any computation of the actual costs of the various elements which go to make up the value of the assembled whole.

This assertion by the Commission and complainant is wholly at variance with an express declaration of this Court in *Galveston Electric Co.* v. *Galveston*, 258 U. S. 388, 394. The opinion of the Court was written by Justice Brandeis, recognized as a leading exponent of the prudent investment theory. We quote:

> "If the rule were that a prescribed rate is to be held confiscatory in case net earnings are not sufficient to yield 8 per cent on the amount prudently invested in the business, there might be propriety in counting as part of the investment such amount, if any, as was necessarily expended at the start in overcoming initial difficulties incident to operation and in securing patronage. But no evidence of any such expenditure was introduced; and the claim of the company does not proceed upon that basis. What was presented by the witnesses are studies, on various theories, of what past deficiencies in net income would aggregate, if 4 per cent were allowed as a depreciation annuity and 8 per cent compound interest were charged annually on the value of the property used."

It is clear that the costs presented here as the basis of the going concern value differ entirely from those condemned by this Court in the *Galveston* case, and that they are just such costs as this Court there approved as constituting a part of the investment.

The Commission and complainant get themselves into dif-

ficulty (Brief, p. 64) by conceding that this might not be true of going concern cost considered as a development cost necessary to bring the business to the state of a going concern. Characteristically, they resort to the earnings history of cross-petitioners during the period prior to regulation and assert that, where the development cost consists of operating or capital charges which have been returned through earnings calculated on the basis of a reasonable rate of return, they may not be charged again to the consumer by inclusion in the rate base. It must be remembered that prior to regulation cross-petitioners were not limited to the Commission's conception of a reasonable return. They were a private enterprise, and the measure of their earnings was that which they could realize from a sale of their commodity by private contracts in competition with the other fuels which had to be supplanted in order to develop a market for natural gas.

The Commission and complainant concede (Brief, pp. 64-65) that where the utility fails to obtain a reasonable return during the development period, any necessary development costs to the extent that they are represented by actual deficits and earnings may theoretically be considered as a going concern cost and as a part of the total investment in the business.[2] They express the view, how-

[2] As a matter of fact, cross-petitioners did not earn a reasonable return during the development period, 1932 to 1935 inclusive. Referring to the table shown at page 44 of the brief of the Commission and complainant and to the sources there cited, it appears: if the development period 1932 to 1935, inclusive, be considered, the item "Total Undepreciated Cost of Property Plus Working Capital," as of the beginning of 1935, is $245,607,246.19 (Exhibit 137, p. 2, line 20, R. Vol. VII, p. 2993); the item "Total New Earnings Available For Return" for the same four years becomes $12,362,860.14 (Exhibit 136, p. 1, lines 5, 9, 10 and 11, R. Vol. VII, p. 2959); and the item "Average Return on the Undepreciated Rate Base (%)" turns out to be 5.03%. Also the "Net Earnings Available for Return, less $8,500,000 claimed by the Companies for Going Value" turns out to be $3,862,860.14; and the "Average Return on Undepreciated Rate Base, After Deducting from the Return the Total Amount Claimed for Going Value (%)" turns out to be 1.57%!

ever, that this would not be good accounting practice, thus implying that accounting practice should prevail over constitutional rights. They then contend that while such developmental costs may theoretically be capitalized, the Constitution does not require that they be so treated. Cross-petitioners submit that the existence of a deficit or a profit during the development period has nothing to do with the right of the regulated company to capitalize the costs of development. The Comission and complainant go on to say: "All the Constitution requires, we believe, is that the investors be allowed a return sufficient to give them a fair opportunity to recoup these costs. This might be done by including the costs in the rate base as part of investment." This is exactly what cross-petitioners are contending the Commission should have done in the instant case. They are asking going concern value only in the amount of the actual costs incurred in acquiring it. The Commission and complainant go on to say, however, that, "It might also be done, and under good accounting practice should be done, by fixing the rate of return at such a figure as to take account of the risk of loss in the development period." This is indeed a very practical suggestion, coming from the Comission ten years after cross-petitioners entered their development period and six full years after all the "developmental" costs incident to the load-building period have been incurred! Just as ridiculous is the observation that if the rates imposed from the outset of the business allowed a rate of return based on the risk of early loss, the inclusion of such deficits in the investment would obviously permit a double return. Since cross-petitioners were not under regulation, they necessarily received no such allowance. They spent the money necessary to put their business on a going basis, hoping that over the whole period of their operations they would be able to recoup it, together with a reasonable return for its use.

The argument (Br., pp. 66 *et seq.*) that "If a rate regulation imposed at the outset is valid so long as it permits the investors a reasonable opportunity to recoup losses, a rate imposed after the development period may ignore losses so long as the investors had a reasonable opportunity to amortize the amount of such losses prior to the commencement of regulation," begs the question here under consideration. Cross-petitioners are not asking any allowance in the rate base for past losses. They are not asking an allowance for going concern value because of any past losses. The value for which they contend is not any value incident to past losses, but a value obtained through the actual expenditure of large sums of money as interest, taxes, and other items in maintaining temporarily unusued capacity and in defraying costs of advertising and other promotional expense.

In footnote 18 (Br., p. 67) the Commission and complainant assume "for the purposes of argument that a regulatory body cannot retrospectively reduce past excessive profits by reducing present rates," and then insist that past earnings may be considered in determining whether past losses must be treated as part of the investment. This observation, of course, again begs the question, since cross-petitioners are asking no allowance for past losses. The observation indicates, however, that it is only "for purposes of argument" that the Commission and complainant were willing to assume that a regulatory body cannot retrospectively consider and deal with past earnings. That they would have this Court consider past earnings is manifest from their adverting once more to cross-petitioners' earnings from 1936 to 1938 and their insistence that the revenues from those years were sufficient to amortize the entire going concern value and give the companies an average return of 7.28% on their undepreciated investment. Without waiving the principle that

past earnings can not be taken into account in fixing rates for the future, cross-petitioners again point out that the average return over the whole period from 1932 to 1938, after deducting the $8,500,000, was not 7.28% but 5.5%.

On page 68 the Commission and complainant state that the total book cost of the existing properties as of December 31, 1939, was $60,950,000 and that there was a difference of approximately $13,500,000 between the companies' present investment and the rate base allowed. That statement is wholly contrary to the record, as pointed out by cross-petitioners in their original brief (pp. 71-2). They doubtless seek to justify themselves in this statement by the circumstance that (see footnote 19) prior to June 1, 1939, cross-petitioners, as a matter of bookkeeping, had charged to expense retirements of gas leases in the amount of $6,526,160. The record clearly, unequivocally and without contradiction shows that this book entry of $6,526,160 did not represent the cost of leases which were surrendered or retired. It is necessary to refer to the testimony on this point.

Floyd C. Brown, vice president and general manager of cross-petitioners, testified in detail as to the purchase of cross-petitioners' gas leases in the Texas Panhandle field (R. Vol. I, pp. 536-41). He explained that in the years 1929, 1930 and 1931, when these leases were being assembled, it was known that a great reserve of gas was located in the general area of the Panhandle field as now known. He pointed out, however, that the field was in a comparatively undeveloped stage of its history and that there was then no way of determining accurately the boundaries of the field; that in addition to the sweet gas utilized by pipelines there was a large portion of the field in which the gas was sour, or contaminated with sulphur compounds. The exact extent and location of these sour gas areas was not then known. Portions of the field were

already productive of oil. Prospecting for additional oil deposits in the area was still continuing, and it could not be known where other oil producing areas would be developed. In these oil field areas, both known and unknown, it was a matter of common knowledge that tremendous quantities of gas would be produced in connection with the oil production, resulting in the creation of low pressure areas which would rapidly drain surrounding gas producing areas of their natural gas content.

He further pointed out that at that time practically the whole field was leased up by large oil companies which held leases producing both oil and gas, and that it was impossible to go out and purchase from the land owners gas reserves sufficiently extensive and in sufficiently large blocks to justify pipeline development. It was necessary, therefore, in assembling reserves adequate to supply a pipeline of the magnitude of that of cross-petitioners to purchase their gas rights or reserves from these large companies. It was known that some portions of the field were extremely productive of natural gas and that in other portions of the proven field the wells were very small and for that reason undesirable from the standpoint of a pipeline company. The state of the development, however, made it impossible to determine in advance where all of the choice production would turn out to be or what portions of the undeveloped areas would prove undesirable because of small productivity. The best that cross-petitioners could do, therefore, was to acquire their acreage over a wide area so as to be certain to acquire adequate reserves in areas which would turn out to be desirable from a productivity standpoint. It was impossible to concentrate on the areas then known to be highly productive for the reason that the owners of the gas rights refused to dispose of their gas in the more desirable areas unless the purchaser would take all of their gas reserves off

their hands. They were forced, therefore, as a practical matter and as a matter of prudence, to purchase a great deal more acreage than they intended to retain and develop. However, they felt justified in expending the entire cost of the 316,000 acres originally acquired on the theory that included in this wide spread of acreage would be areas of such productivity and desirability as that cross-petitioners would have reserves adequate to all their needs during the economic life of the Panhandle gas field. They were purchasing, not acres, but gas reserves, and at all times intended to release to the land owners gas leases which might turn out to be undesirable because located in areas of non-production or small production, leases in the sour gas area, leases too small to justify the cost of developing, leases so near oil fields as that they would be depleted of their gas through oil field operations and other types of undesirable leases, retaining only those leases which could be consolidated and developed in comparatively large blocks, located in the more productive areas and containing adequate reserves of gas.

J. G. Dickinson, superintendent of production, who has had charge of assembling, consolidating and developing cross-petitioners' acreage in Texas, testified in detail to the same facts as those covered by the testimony of Mr. Brown (R. Vol. I, pp. 616-623). He pointed out that it is the usual practice of oil and gas companies, when a discovery of oil in large quantities is made, to try to buy some acreage close to the well, for which they usually had to pay a high price, and in addition to buy spreads of acreage out over the undeveloped territory with the hope that some of this acreage would turn out to be productive; that the greater part of the entire area believed to contain oil and gas had been so leased up by oil companies by 1930, when cross-petitioners' reserves were acquired. He, too, called attention to the necessity under

those circumstances of purchasing their acreage in large blocks made up of non-contiguous smaller leases. Included in the blocks of leases purchased were 1,009 separate leases, on which there were 69 scattered wells. More than 900 of these leases had not yet been drilled and their protentialities were not known. He testified that it was never the intention of the companies to retain all of these 1,009 leases, embracing 316,000 acres; that it was the purpose of the companies, as development of the field progressed, to cull out and select from this acreage to the end that cross-petitioners consolidate and retain only the quantity deemed adequate to meet their future equirements. To illustrate the point that these leases were not purchased on any theory that every acre covered by these 1,009 leases had the same value as every other acre, he described the negotiations with Magnolia Petroleum Company covering leases embracing an aggregate of about 50,000 acres. On this point he testified (R. Vol. I, p. 621):

> "We could not have traded with the Magnolia, for instance, on the basis of picking out what we thought was the best acreage they had and buying it for $50.00 or $40.00 an acre. They demanded $2,000,000 for their acreage. They were willing for us to take what we wanted of it, but that is what it would cost. We would have all of it for that or just a part of it for that."

He then explained that none of the oil companies was willing to sell its choice acreage and have left on its hands the other part. When they sold their gas acreage in the field they sold all of it.

In the light of this evidence, which the record shows presented the usual and not an unusual situation, it manifestly would be unfair to assume that these reserves were purchased on a per acre basis and that, upon the surrender back to the land owner of the small and undesirable tracts, the cost of cross-petitioners' reserves would be reduced by the product resulting from multiplying the total number of acres surrendered by the average cost per acre; and it

manifestly would be utterly unjust to assume that the desirable acreage remaining after the surrender of these small and practically worthless tracts cost only the average price per acre paid for the whole 316,000 acres multiplied by the number of acres finally retained.

The record shows without dispute that the charges to retirements on a per acre basis as these undersirable leases were surrendered were never intended to reflect either the value or the cost of the acreage surrendered, nor was the balance remaining after the charges intended to reflect either the value or the cost of the acreage retained, consolidated and developed.

John A. Cooke, an independent accountant, who has been auditing the books of cross-petitioners from year to year over the whole period of their history, testified (Vol. IV, pp. 2622-3) that the practice of charging off the surrendered acreage at the average cost per acre was commenced at his suggestion; that he understood at the time he made the suggestion that the average cost per acre did not represent at all the true value of the acreage surrendered or of the acreage retained. In this connection he said (R. Vol. IV, p. 2623):

> "At that time, it was contemplated that other acreage would be surrendered. It was not known how much would be surrendered. It was not my thought in recommending the setting up of the accounts on that basis that when this acreage was surrendered it was worth $65.548 per acre. That was obviously not considered at all. An average doesn't represent true value; and by any process of reasoning, that which you give away as valueless to you is obviously of less value than that which you keep, so that the very fact that it was surrendered was an indication that it was worth little or nothing, and certainly not anywhere near $65 an acre. The value would lie in what was left."

He then continued:

> "We were not concerned with the problems insofar as the accounting cost of the retained acreage was con-

cerned. We were concerned only with the result of a method of accounting. It was my understanding at the time I recommended that method of accounting that *in acquiring that acreage they considered that the acreage which turned out to be desirable would cost them the full amount that they paid for all of it.* That was the understanding they put up to me in that discussion. If they had only had half of the acreage left after the weeding out process was completed, that was all that they were after originally in their acquisition—all that was useful to them."

S. E. Campbell, secretary of cross-petitioners, who has direct charge of the accounting and records, testified to the same effect (R. Vol. IV, p. 2647):

"* * * It was not our thought at that time that the acreage which we had released during 1933 and 1934 and which would be released after the time we adopted this policy was on the first day of January, 1933, worth $65.548 per acre. That we had no such thought is substantiated by the fact that we released it in place of selling it. We would have sold it if it had had value.

"The amount of $65.548 set up on the books was the total cost of all of the acreage divided by the number of acres on hand at that date, namely, January 1, 1933. As far as the books are concerned, we have reduced the book costs for the acreage retired since January 1, 1933, at the rate of $65.548 per acre. Charging that off the books as we released it does not get our money back. The property account, so far as that creage is concerned, in my opinion, does not reflect the cost of the acreage which we still retain."

It was upon the basis of this undisputed testimony, which conclusively establishes the facts, that cross-petitioners in their original brief (pp. 71-2) took the position, and now take the position, that in figuring the original cost of cross-petitioners' gas reserves this item of $6,526,160 charged to retirements should not be deducted. Clearly, therefore, the Commission and complainant are without justification for their contention that the cost of cross-petitioners' pres-

ent physical facilities as of December 31, 1939, was only $60,950,000. The correct figure is $67,476,160. When $8,500,000, the cost of the intangible or going concern value, is added to these figures, the original cost of what cross-petitioners now own turns out to be $75,975,160.

B. Reply to the Contention That the Commission Made a Proper Allowance for Amortization.

1. The Commission Erred in Holding That Cross-Petitioners Are Entitled to Amortize Only the Investment in the Property, Without Regard to the Value of the Existing Property at the Time They Were Subjected to Regulation.

The Commission and complainant begin their argument on this question (Br., p. 70) with the observation that, under their theory that it is only the investment and not the fair value of a utility's property which the Constitution protects—in other words, that the doctrine of *Smyth* v. *Ames* is wrong—there can be no possible doubt as to the validity of the Commission's action in using investment as the amount to be amortized. Cross-petitioners emphatically disagree with that observation. They reserve argument on the contention that *Smyth* v. *Ames* should be overruled for discussion in their reply to Point VI of the brief of the Commission and complainant; but if this Court should overrule *Smyth* v. *Ames*, which American investors have for generations regarded as the settled law of this country and in the light of which billions of dollars have been invested by the American people in the properties and securities of regulated concerns, cross-petitioners insist that their special status and that of other companies first subjected to regulation under the Natural Gas Act requires that the value of their properties, as of the time they were first converted from the status of a private enterprise to that of a regulated enterprise, must be allowed in the rate base and

in the amount to be amortized, and that the period of amortization must commence as of that time.

Cross-petitioners discussed this point at length in their original brief (pp. 102-129). They there attempted to demonstrate, and, they submit, did demonstrate, that the enactment of the Natural Gas Act operated to subject their property, and not its cost seven or eight years before, to the public use. They pointed out that the character of the ownership and use of their property was necessarily changed, and that they were themselves, in fact, converted from a private enterprise into a regulated enterprise. Both in the court below and in their original brief before this Court they urged that under those conditions the Commission was required to take notice of the value of their property as of the time regulation was imposed upon them, and that a constitutional administration of the Natural Gas Act required the Commission to make provision, not only for a reasonable return *on* the value of that property, but for the return *of* the value of that property. The Commission and complainant have not met the issue. The court below upheld the contentions of cross-petitioners, observing in its comments upon the Natural Gas Act (R. Vol. VIII, p. 4040):

> "* * * That legislation looks to the future protection of the public. It deals with conditions which existed at the time the legislation was enacted. It neither gave, nor took away, value to going concerns, whose lives were short and limited by fact conditions which neither the producer nor the consumer could change."

It also observed in the same connection (R. Vol. VIII, p. 4040):

> "* * * the date when the business enterprise became subject to governmental regulation is of dominant significance. It is important, too, as bearing on the rate making power of Congress. Avoidance of conflicts with the Fifth Amendment of the Constitution is involved. Petitioners' (cross-petitioners) position avoids the conflicts; respondents' (the Commission and complainant) creates an unavoidable clash."

The Commission and complainant have begged the question, and have proceeded throughout their argument on this point just as if cross-petitioners were an ordinary continuing utility which had invested its money in an enterprise already subjected to regulation, thus voluntarily dedicating its properties to the public use.

Since, as pointed out in cross-petitioners' original brief, the Natural Gas Act operated to condemn to public use the property of cross-petitioners, which had been acquired and put into operation as a strictly private enterprise, all that the Commission and complainant say in their argument on this point is irrelevant. Whatever the practice of unregulated businesses in matters of bookkeeping, and whatever the attitude of state regulatory bodies to the pronouncement of this Court in *United Railways* v. *West*, 280 U. S. 234, 253, due process requires that the Commission provide for the return to cross-petitioners of the value of their property as of the time it was first condemned to public use through the operation of the Natural Gas Act. In making their book entries for depreciation, the unregulated business is not concerned with the protection of its rights under the due process clause. It may be conceded that the keeping of accounts will be facilitated by charging the accruals for depreciation on a basis of original cost. The making of such charges, however, in the case of an unregulated concern does not take away the property. If that principle be applied here, the difference between the original cost of the property and its value as of the time subjected to public use will be lost by the owner; for it is only the original cost, and not its value, which will be returned through amortization. In adopting as the rate base the reproduction cost new, and not the original cost, the Commission necessarily found that the property of cross-petitioners as of the time of the hearing would cost more than it cost at the time the facilities were purchased and put into service.

The Commission and complainant admit that their position here is directly opposed to the decision of this Court in *United Railways* v. *West*, 280 U. S. 234, 253. In an effort to extricate themselves from their difficulty, they resort to their characteristic suggestion that this Court overrule its decision in that case. They also seek to distinguish the *West* case on what they term "the narrow ground that the court was there dealing with the depreciation of a utility with an indefinite life and which was therefore faced with the necessity of replacing physical properties the service life of which was exhausted." The distinction weakens rather than strengthens the position of the Commission and complainant; for here cross-petitioners are urging their right to realize the *value* of their property over the life of their reserves of natural gas. Unless they realize this value through the allowance for amortization, they will lose it. It is highly important, therefore, that in fixing the allowance for amortization full provision be made for the return of this value by the end of 1954.

The Commission and complainant admit, however, that the distinction is not satisfactory from their standpoint, and reassert that the *West* case is wrong in principle. To this contention cross-petitioners do not agree. *It is property which depreciates, and not the cost of the property. It is the property, and not the cost of the property, which must be replaced if the utility is to continue in business after its facilities have been worn out in service.* It is for these reasons that this Court decided in the *West* case that the allowance for depreciation must be based on the value of the property and not on its cost. The *West* case does not stand alone among the decisions of this Court. In *Clark's Ferry Bridge Co.* v. *Public Service Commission*, 291 U. S. 227, 240-241, this Court, in an opinion by Chief Justice Hughes, recognized the principle in this language:

> "Considering the nature of the property, and upon facts shown by the evidence, the state court has

allowed appellant to reserve annually, and use for its own purposes, an amount which according to common experience may be expected to produce a sum *adequate to replace the property* on the expiration of its life." (Italics ours.)

Again, in *Georgia Railway Power Co.* v. *Railroad Commission*, 262 U. S. 625, 663, this Court, in an opinion by Mr. Justice Brandeis, said:

> "The amount of the depreciation charge is also objected to on the ground that the percentage should have been figured on a larger value. This objection depends upon the *value to be placed upon the physical property*, which has already been discussed." (Italics ours.)

The principle was again recognized in *Lindheimer* v. *Illinois Bell Telephone Co.*, 292 U. S. 151, 167, in which this Court, in an opinion by Chief Justice Hughes, after observing that depreciation is the loss, not restored by current maintenance, which is due to the factors causing the ultimate retirement of the property, added:

> "It is proper to include in the operating expenses, that is, in the cost of producing the service, an allowance for consumption of capital in order to maintain the integrity of the investment."

Let us assume that a continuing utility is utilizing a compressor unit costing in 1930 the sum of $45,000, but that at this time the price of that unit has advanced to $65,000. Would an allowance for depreciation spread over the life of that compressor unit, based on a cost of $45,000, replace that equipment? Apply that same illustration to every other unit utilized by the regulated concern. Would the integrity of the investment be maintained if at the end of the service life of its facilities it shall have received through depreciation only $45,000 of every $65,000 required to replace its facilities?

The *West* case is not in conflict with the *Lindheimer* case, as contended by the Commission and complainant (Br., p. 77). The question was not before this Court in the *Lind-*

heimer case, and this Court in its comment upon the method of accounting of the telephone company neither approved nor disapproved that method of accounting. The Chief Justice, in the majority opinion, observed that the company was using the "straight line method of computation, a method approved by the Interstate Commerce Commission," citing 177 I. C. C. Rep. 408, 413. He observed that by this method the annual depreciation charge is obtained by dividing the estimated service value by the number of years of extended service life. Does the Commission contend that by this observation this Court approved the straight line method of amortization? If so, and if the Commission is interested in following a method approved by this Court, why did it reject the straight line method of computation approved by the Interstate Commerce Commission, and adopt a method of computation expressly rejected and condemned by the Interstate Commerce Commission in the report cited by this Court in its opinion? The fact is that the depreciation charges of the telephone company were rejected by this Court in the *Lindheimer* case. It held they were too high, and on that ground refused to set aside an order of the Illinois Commerce Commission. Justice Butler wrote a concurring opinion, in which he observed that the straight line method, calculated on cost less salvage, employed by the company, was not in harmony with the principle of this Court's decision in the *West* case; but he did not state, as contended by the Commission and complainant that "the method of depreciation approved by the majority" was not in harmony with the principle of the *West* case. Manifestly, he would not have done that for the reason, as already stated, that this Court did not approve or disapprove the method of computation used by the telephone company. Its decision was based on excessive charges and not the method of computation.

It is true that the Virginia court, in *Alexandria Water*

Co. v. *City Council of Alexandria*, 163 Va. 132, assumed that the *Lindheimer* case was in conflict with the *West* case. Cross-petitioners pointed this out in their original brief (p. 157). This circumstance, however, is without importance, since there is no such conflict. Cross-petitioners disagree with the Commission and complainant that it is significant that, despite the *West* case, utility commissions have continued to follow cost accounting for depreciation. That is a unique argument to present to this Court as to why its solemn pronouncement on a constitutional principle should be set aside and overruled.

2. The Commission Erred in Fixing the Amortization Period as the Entire Life of the Enterprise Beginning Several Years Before the Enactment of the Natural Gas Act.

In their argument on this point (Br., p. 79) the Commission and complainant once more assume, contrary to fact, that there is no distinction between the case presented here and the case of an ordinary continuing utility under regulation from its inception. In their original brief (pp. 102-129) cross-petitioners made the point that, because they operated for years as a private enterprise and were first subjected to regulation through the operation of the Natural Gas Act, the Commission was required so to administer that Act as to restore through an allowance for amortization, and not depreciation, the value of their property subjected to public use, together with the value of future capital additions computed on a basis of costs at the time of the hearing. They demonstrated, they submit, that a denial by the Commission of a return of that full value necessarily would operate to deprive cross-petitioners of that value without due process and without compensation, in violation of the Fifth Amendment. The Commission and complainant have not answered that argu-

ment. They can not answer it. They proceed, therefore, on the premise that there is no distinction between the consideration of the constitutional rights of cross-petitioners, whose business was converted from that of a strictly private enterprise to one which must devote its property to the public use, and a utility which voluntarily dedicated its properties to public use and enjoyed the privileges of a public utility from the beginning. It must be remembered that cross-petitioners enjoyed none of the privileges of a public utility during the first seven years of their operations, but were forced to develop their business as a private enterprise.

The question here presented is not the amount of the *total cost* cross-petitioners are entitled to charge for *depreciation* in the future, as stated by the Commission and complainant. It is rather the period over which the *value* of their properties will be returned through allowances for *amortization*. Cross-petitioners do not agree that the answer to the question depends on the nature of the depreciation and the proper method of accounting for it. The nature of the charge is not subject to question. The charge is for amortizing the value of the property, and cross-petitioners submit that no method of accounting for this value which requires cross-petitioners to draw on their past earnings can be applied without a head-on conflict with the Fifth Amendment.

Whatever the theories presented by the proceedings of the National Association of Railroad and Utilities Commissioners or the various pamphlets and books by accountants and economists cited by the Commission and complainant may be as to whether depreciation is the diminution of service capacity or of service value, the Commission and complainant are still confronted with the fact that at the time cross-petitioners' properties lost their private character and were first subjected to public use through the enactment of the Natural Gas Act they had a

value, together with the cost of properties to be added in the future, in excess of $80,000,000.

Cross-petitioners do not agree that this Court expressed the view in the *Lindheimer* case that it is service value and not monetary value for which depreciation compensates. In that case Chief Justice Hughes observed that:

> "Broadly speaking, depreciation is the *loss* not restored by current maintenance which is due to all the factors causing the ultimate retirement of the property." (Italics ours.)

He did not say loss of service value. His language must be construed in the light of the multitude of decisions by this Court to the effect that it is the loss of the property and its monetary value for which the allowance for depreciation is designed to compensate. If a compressor unit costing $65,000 goes out of service, the manufacturer of a new one is not concerned with the number of years the replaced engine has been in service, nor is he interested in the original cost of said engine. If the regulated company replaces that engine, it must pay the amount representing the monetary value of the new one. In the case of an ordinary continuing utility depreciation charged against the old engine is for the purpose of enabling the owner to buy a new one when the old one wears out.

The Commission and complainant get farther away from the real question presented by raising still another question (Br., p. 83). They assert that the real question is not the period of *amortization* but what amount should be charged for *depreciation* for the period prior to the rate order. Again cross-petitioners point out that it was an allowance for amortization which they presented to the Commission; it was an allowance for amortization which the Commission purported to make; and it was cross-petitioners' claim for amortization and not one for depreciation which the court below sustained.

The one question under discussion here is the period of

amortization. There can be no question, unless the Fifth Amendment is to be totally ignored and set aside, as to whether any part of this allowance for amortization can be charged out of earnings prior to regulation. Even in the case of depreciation the allowances were for the future. The Commission and complainant so admit (Br., p. 84). In footnote 26 they cite authority for the statement that if past charges for depreciation have been excessive, the utility retains the benefit, and if they have been inadequate the utility bears the loss. This means simply that charges for depreciation prior to a new rate order are wholly immaterial. They assert that on the theory of *Smyth* v. *Ames* it is the property and not the investment which the Constitution protects, *the actual past depreciation of the property must be deducted in order to determine what property must be returned to the companies in the future.* They cite the *Knoxville Water Company* and *Lindheimer* cases and the *Minnesota Rate* cases on this point. That is exactly what cross-petitoners have contended, and that is exactly what cross-petitioners have done in this case. They have deducted the actual past depreciation, established by uncontradicted evidence from a careful inspection of their properties, from the reproduction cost thereof adopted by the Commission as correct, and have submitted the difference as evidence of the present fair value of their properties. The deduction referred to in the *Knoxville Water Company* case and the other cases cited had nothing to do with book entries or computations for depreciation. The deductions were made solely for the purpose of arriving at the *fair value* of the properties and were in no sense used as the measure of the allowances for future depreciation.

This Court has specifically approved the inspection method of arriving at actual depreciation and has pointed out the difference between the actual depreciation and that set up on the books, observing in that connection that the

book entries usually exceed in amount the actual depreciation. *McCardle* v. *Indianapolis Water Co.*, 272 U. S. 400, 416; *Lindheimer* v. *Illinois Bell Telephone Co.*, *supra*; *New York Telephone Co.* v. *Prendergast*, 300 Fed. 822, 825, affirmed in *Prendergast* v. *New York Telephone Co.*, 262 U. S. 43. Wholly ignoring the holdings of this Court in those cases, and in numerous other cases, that it is the actual depreciation which must be deducted, that the purpose of the deduction is in order to arrive at the present fair value of the property, and that it is improper to deduct in arriving at the value of the property the book entries for depreciation, the Commission deliberately proceeded, in effect, to deduct past theoretical depreciation based on book entries which it now directs be made to cover future amortization allowances. This it accomplishes by distributing the allowances over the whole life of cross-petitioners' project, including seven or eight years of their operations prior to regulation. The Commission and complainant seek to defend this action on the ground that the charges to amortization for past operations conform roughly to the charges for depreciation entered on the books of cross-petitioners during the years prior to regulation. Since these book entries are wholly without materiality in arriving at the actual depreciation, they are likewise wholly without materiality as a basis of comparison for a deduction by the Commission not based on actual depreciation. During the first two years of cross-petitioners' operations they entered on their books no charges for depreciation and depletion. Not until their records had been criticized by an outside auditor (R. Vol. IV, pp. 2618-20) and by the Federal Trade Commission (R. Vol. IV, p. 2644) did these companies set up on their books any such charges. As already pointed out (*supra*, p. .....), those book entries were never intended to make provision for the return of the value of cross-petitioners' property or its cost during the life of cross-petitioners' reserves of natural

gas. The charges for retirements of gas leases had no relation to the cost of the gas reserves acquired, developed and retained by cross-petitioners (R. Vol. IV, pp. 2623, 2646). The charges for depletion were based on the withdrawals of cross-petitioners from their leases, and not the total withdrawals of all producers in the field, which will determine its ultimate exhaustion (R. Vol. III, p. 1410). The charges for depreciation were based on the physical life of the facilities and not the life of the gas reserves (R. Vol. IV, p. 2646). None of these entries was intended to reflect either the cost or the value of cross-petitioners' facilities.

The Commission and complainant argue that under the undisputed facts it would have been reasonable to conclude that an equal amount of service capacity is lost each year from the beginning of cross-petitioners' operations; but they again overlook the essential fact, which must be taken into account, that when cross-petitioners' properties were first put under the jurisdiction of the Commission they had a *value*, and that it was the number of years lying out in the future over which these properties would be utilized prior to the exhaustion of cross-petitioners' gas reserves that measured the period over which the Commission must provide for the return to cross-petitioners of that value.

The Commission and complainant conclude their discussion of Subdivision (a) under this point (Br., p. 88) with the observation that the companies have drawn the indefensible conclusion that no further depreciation will occur throughout the life of the properties, assuming proper maintenance. Cross-petitioners have drawn no such conclusion. They recognize that there will be some physical depreciation on their facilities during the period over which their reserves will be exhausted. They have not computed that depreciation for the reason that they are not asking any allowance to cover that depreciation. In the main, the

facilities will not be replaced within that time and, therefore, there is no occasion to make provision for depreciation except as to certain items of short life concerning which there is no issue. The issue goes to the provision for the amortization of the value of cross-petitioners' properties, to which cross-petitioners are entitled without regard to the actual depreciation occurring prior to the end of 1954.

Beginning on page 90, the Commission and complainant contend that "on the investment theory of rate making it is equally clear that the amount in effect deducted by the Commission for past depreciation is reasonable." The contention is wholly academic. The prudent investment theory of rate making is not involved here. The Commission did not adopt that theory of rate making. It can not come into this Court and complain of its own act in adopting another theory. The complainant filed no motion for rehearing, nor did it raise any question as to the method employed in the court below or in the application for writ of certiorari to this Court. It, therefore, can not be heard to complain of the failure of the Commission to adopt the prudent investment theory of rate making. Cross-petitioners will discuss these points further in their reply to Point VI presented by the Commission and complainant.

Whatever the purpose of depreciation under the investment theory of rate making, the purpose of the amortization allowance in the case at bar is to return to cross-petitioners the value of their property over the remaining life of the field from and after the time the character of that property is changed through its being subjected to the public use under the Natural Gas Act. The allocation of any part of the past earnings to the return of that value is a clear attempt on the part of the Commission to control the revenues and earnings of cross-petitioners during the period when they were a private enterprise not under regu-

lation. Sound business accounting, so far as past earnings are concerned, has nothing to do with the problem of providing for amortization in the future.

The Commission and complainant assert that if regulation had been imposed at the outset of the business it would have been reasonable to distribute the amortization over the whole life of the enterprise, either on a straight line basis or a sinking fund basis. If this be granted for purposes of argument, the fact remains that regulation was not imposed at the outset of the business. Cross-petitioners were not under regulation and the benefits accruing to an ordinary utility were not available to them prior to the enactment of the Natural Gas Act. They were not given a monopoly over the markets as is an ordinary utility. They invested their money and put the property acquired to risk, taking their chances that they would be able to negotiate the sale of natural gas in their markets, approximately 900 miles from their source of supply, *in competition with other fuels.* They had a chance, by building up their markets and putting them on an earning basis, to realize substantial enhancement of the value of their properties, just as would any other unregulated company which by diligence, skill and good management might build up its earnings to an attractive level. Since the enactment of the Natural Gas Act they are still in competition with other fuels; but they are denied the opportunity to enhance the value of their property by building up their earnings to a maximum under the contracts privately negotiated for the sale of their gas. Their prices are now fixed by the Commission, and any value based upon earning power is absolutely frozen within the limits resulting from the rates fixed by the Commission. The only opportunity they have for realizing any benefit from enhanced value is the increase reflected by a revaluation of their properties for rate making purposes in the administration of the Natural Gas Act. The investment theory of rate making would deny

them even that enhancement. In the situation confronting the country for an indefinite period in the future, cross-petitioners, if subjected to regulation on the investment theory, would be paid a return on, and through amortization be compensated in, dollars of very substantially less purchasing power than the dollars which they invested in this project.

The Commission and complainant impliedly admit the weakness of their position in the observation (Br., p. 91) that, where rate regulation is directly imposed for the first time after part of the life of the enterprise has expired, the same methods of amortization may validly be employed, *at least so long as their use does not defeat any legitimate past expectations of investors.* If there is any principle of law well settled by this Court and by courts throughout the country, it is that past hopes, past expectations, past losses, or past profits can not be taken into account in fixing rates for the future. *Board of Utility Commissioners* v. *New York Telephone Co.*, 271 U. S. 23, 31; *Knoxville Water Co.* v. *Knoxville*, 212 U. S. 1, 13-14; *Galveston Electric Co.* v. *Galveston*, 258 U. S. 388, 395; *Newton* v. *Consolidated Gas Co.*, 258 U. S. 165, 175.

Cross-petitioners submit that the *Knoxville* case is susceptible of no such construction as that stated by the Commission and complainant on page 92 of their brief. In that case this Court was dealing with actual depreciation in the past as going to the value of the property at the time of the rate investigation, and the holding was that the company could not ask for additional allowances in the future for depreciation because in the past it had not set up charges equal to the actual depreciation. In that case this Court was dealing with a utility already under regulation during the period when the company was claiming it had failed to set up sufficient allowances to cover its actual depreci-

ation. Its rates were necessarily directly affected by the amount of these charges, and had it made suitable provision for depreciation during the prior period of regulation it would have been allowed earnings to cover those charges. In the present case cross-petitioners' book entries for depreciation and depletion during the period prior to regulation had nothing to do with their rates or their earnings. Their charges were fixed by private contracts and their earnings resulted from the sale of gas at the contract prices. *No customer of cross-petitioners paid a penny more or less for gas by reason of the book entries for depreciation and depletion.*

At the conclusion of their argument on this point (Br., pp. 94-95) the Commission and complainant are forced to fall back on the past earnings of cross-petitioners in their attempt to justify the Commission's order. They say that the companies must have earned enough to return a reasonable portion of their investment, unless their enterprise was improvidently conceived, or the management was either inefficient or imprudently failed to maintain a proper reserve to keep the investment unimpaired. Cross-petitioners agree that they could not resort to mistakes in bookkeeping as the basis for a claim for additional amortization allowances because of past actual depreciation. They could have made no such claim under the *Knoxville* and *Lindheimer* cases cited by the Commission and complainant, and they are here making no such claim. Of course the Constitution does not guarantee cross-petitioners against loss of their investment due to past improvidence. No such issue is in this case. The record shows a maximum of creative skill in construction and operation and efficiency in management on the part of cross-petitioners, as pointed out in their original brief (pp. 13-15, 160-161). These facts are impressively reflected throughout the record. Cross-petitioners are not invoking the

Constitution in an effort to recoup any losses of the past; but they do invoke the Constitution for the protection of their right to a return through amortization of the value of their property, the use of which was changed from that of strictly private character to a public use through the operation of the Natural Gas Act.

3. The Commission Did Not Use a Proper Rate of Interest in Computing the Amortization Allowance.

At the beginning of their argument on this point (Br., p. 95), the Commission and complainant observe that cross-petitioners contend that the amortization allowance should have been computed on the basis of 2% interest compounded semi-annually rather than on the basis of 6% interest compounded annually, and that the Commission's failure to do this invades their constitutional rights. That is a correct statement of the contention of cross-petitioners.

The Commission and complainant assert (Br., p. 95) that cross-petitioners, after construction had begun, planned for amortization of their investment by the use of the sinking fund method, using an interest rate of 6%. They base this statement on an exhibit offered by the Peoples Gas Light & Coke Company in a proceeding before the Illinois Commerce Commission to which cross-petitioners were not even parties. Mr. Gallagher was formerly a director of cross-petitioner Natural Gas Pipeline Company of America; but he appeared in the proceeding last above mentioned as a witness for the Peoples Gas Light & Coke Company. The Commisison and complainant ignored the fact that cross-petitioners were not parties to the proceedings and that they did not offer the testimony. Indeed, the Commission and complainant stated affirmatively (Br., p. 91, footnote 31) that "the companies" (meaning cross-petitioners) presented evidence of the esti-

mated earnings of the project in that proceeding. This statement has absolutely no foundation in fact. Mr. Gallagher, testifying for Peoples Gas Light & Coke Company, did prepare and testify concerning certain exhibits in which the amortization was computed by the sinking fund method using an interest rate of 6% per annum. The irrelevance of this circumstance is apparent; but it is noted in passing that at the end of 1931 a very different situation obtained than that obtaining at the time of the hearing in the present case. The Commission's employee Knapp produced and testified to a chart taken from the well-known Moody publication, from which it appears (R. Vol. VII, p. 3579) that near the end of 1931 the yields on bonds classified as Aaa exceeded 5.25%; that the yields on Aa bonds reached 6.25%; and that the yields on bonds of lower classifications were correspondingly higher, those on Baa bonds exceeding 8%. Another chart (R. Vol. VI, p. 3141), introduced through the witness Dorau, shows Moody's indices of 40 public utility bonds from which it appears that the yields on the four classes of bonds used in the computation ranged from approximately 5% to approximately 8¼% at the end of 1931, and that these yields were advanced substantially by the middle of 1932. These charts show also very distinct declines in yields between the end of 1931 and the middle of 1939, the time of the hearing. It also appears from another chart (R. Vol. VI, p. 3177) offered by Dorau that the average yield on interest paying natural gas company bonds on the weighted average of total par value was above 14% at the end of 1931. This chart shows that this weighted average had declined to approximately 6½%, the overall rate of return allowed by the Commission to cross-petitioners, by the middle of 1939, the time of the hearing. By what course of reasoning can the Commission and complainant argue that, if 6% would have been a fair interest rate on which to compute the amortization allowance under the conditions

obtaining at the end of 1931, the interest rate in 1939 should be 6½%? No effort is made to show the pertinence of this observation. It was manifestly thrown in for some other purpose.

The Commission and complainant seek to justify the use of a 6½% interest rate, the same as the rate of return, in computing the amortization reserve on the theory that cross-petitioners are in no position to complain, for the reason that over the whole period of cross-petitioners' operations they would receive an amount sufficient to return to them the full amount to be amortized, erroneously fixed at too low an amount as pointed out in our discussion of that subject (*supra*, pp. 6-39), and to pay a 6½% return on the unamortized annual balances. In support of their contention they refer to Sheet 3 of Exhibit 182 (R. Vol. VII, p. 3557; Vol. IV, p. 1994; this brief, Appendix A, p. 103). This theory is unsound, and it necessarily operates to confiscate cross-petitioners' properties and revenues for two reasons: (a) cross-petitioners can not be limited to a reasonable return on the unamortized balances from year to year; and (b) *the earnings allowed do not operate to return to cross-petitioners the full amount to which they are entitled through amortization and a yield of 6½% on the annual unamortized balance each year.*

(a) An order limiting cross-petitioners' earnings to an amount which will return the value of their property and a reasonable return on the unamortized balances from year to year necessarily operates to confiscate cross-petitioners' property in violation of due process.

As pointed out in cross-petitioners' original brief, the proper amount to be amortized is $84,341,218 (p. 103) and the proper rate base is $82,291,553 (p. 6). The potential physical life of the facilities would normally extend far beyond the prospective period at the end of which cross-

petitioners' reserves of natural gas will be exhausted (R. Vol. IV, p. 2646). In the interest of safety and efficiency in handling a commodity like natural gas, it is necessary for cross-petitioners so to maintain their facilities as to keep them in a very high state of repair. It is obvious, therefore, that cross-petitioners' physical facilities will be in substantially as good condition at the end of the project's life as at the present time. *If natural gas were available, they doubtless would be able to transport as much gas through their facilities at the end of the project's life as they are now transporting.*

This Court has consistently held that a regulated concern is entitled to earn a reasonable return on the value of its property as of the time it is subjected to public use. *Los Angeles G. & E. Corp.* v. *Railroad Commission*, 289 U. S. 287, 305. During the approximately 16½ years, the period between the enactment of the Natural Gas Act and the exhaustion of cross-petitioners' supply of natural gas, cross-petitioners will have property of the value of more than eighty million dollars devoted to the service of those they supply with natural gas. Their investment had been made prior to the subjecting of their property to public use through the operation of the Natural Gas Act. They had made this investment upon the basis of having this property employed in this project so long as they had available a supply of natural gas.

The Natural Gas Act can not be so administered as to deprive them of this property or of their right to earn a reasonable return on its value while they have a supply of natural gas available. Their position is strictly analogous to that of an investor, A, who makes a loan of $10,000 to B, taking the latter's note for the same amount with interest at 6% per annum for a period of ten years. After executing and delivering his note, B might decide that it would suit his convenience to pay back the principal in annual installments of $1,000 a year instead of allowing

the whole amount to mature in a lump sum at the end of ten years; but A could not be required to forego his right to keep the full amount invested and receive his interest over the whole period. This principle is frequently invoked in the common practice, of which the Court will take judicial notice, among bond holders and mortgage holders of refusing to accept payment, in whole or in part, before maturity in the absence of special contractual provisions.

On the same principle cross-petitioners can not be required to forego their right to a reasonable return on the value of their property, which they are required to devote to the public interest, merely because the equities among present and future purchasers of natural gas render it expedient, if indeed not necessary, that the burden of returning their capital be distributed over the whole period of amortization. Of course, upon re-examining cross-petitioners' properties in other rate proceedings in future years the Commission will re-establish the rate base at a figure reflecting the value of such properties as of the time of the investigation, taking into account the actual depreciation and depletion up to that time.

The theory of limiting the return of a regulated company to unamortized balances is predicated on the assumption that the property represented by each annual amortization installment is actually retired from service. There may be some basis for such an assumption in the case of a telephone company, for instance, where the allowance is not for amortization but for depreciation. The allowances for depreciation are immediately put back into the business, with the practical result that the owner continues to have a property of substantially the same value as that with which he started out, on which he continues to earn a reasonable return. Thus he is not deprived of his right to continue his property in the telephone business indefinitely into the future. It is doubtless on this assumption that the Interstate Commerce Commission

has adopted the practice of computing the depreciation reserve on the straight line method and allowing a return only on the unamortized balance (Interstate Commerce Commission Reports, Vol. 177, pp. 408-13).

An entirely different result would obtain in the case of cross-petitioners if their earnings were decreased from year to year as the accumulations for amortization accrue over the period of approximately 16 years. Their property will not be retired from service until the end of their operations, at which time it will be salvaged. They must continue to serve all their purchasers, whether they desire to do so or not; for under the Natural Gas Act they can discontinue service to any customer only with the permission of the Commission. In order to serve all their purchasers they must continue to utilize all their properties. So long as they have natural gas available they have the same right to a return on the value of their properties devoted to the service of their customers as does a telephone company to such a return. Obviously, they would be denied the principal fruits of their enterprise if forced to accept a steadily declining return on the value of their properties.

It is not necessary that they be thus harshly treated in order to protect the rights of their purchasers and of the ultimate consumers of natural gas. They are not here insisting on the return as principal of the full amount to which they are entitled through amortization. They are perfectly willing to accept annual accruals for amortization at a rate that will return to them ultimately as principal less than the full value of their properties, the difference to be made up in compound interest at a rate which these accruals would earn if invested in the nearest to risk-free securities obtainable, so that when their gas reserves shall have been exhausted they will have available a total amount, represented by the accruals to principal, the

charges to interest, and the salvage, which will return to them the full amount to which they are entitled; but they are not willing to forego their right to the benefits of this gigantic enterprise, in which they have invested so many millions of dollars, so long as they have natural gas available to carry on their business.

It is manifest that the practical effect of applying the theory that cross-petitioners are entitled to earn a reasonable return on only the unamortized balance from year to year through the life of their project is so to reduce the return during the last few years, when the unamortized balance will have greatly declined, as that cross-petitioners would be operating this great enterprise practically for the privilege of recovering their capital. Indeed, during the last year cross-petitioners would be required to operate an eighty million dollar enterprise for a return of 6¼% on less than five million dollars, the amount of the last installment for amortization, the balance of their earnings all going to a return *of* their capital. This is not regulation. *It is forced liquidation.* Cross-petitioners submit that such procedure is clearly in violation of the due process clause.

(b) The calculation of the amortization reserve by the method employed, using a compound interest rate equal to the rate of return, does not provide for the return of the amount to be amortized and for a return each year at the allowed rate on the unamortized balance.

The Commission and complainant assert (Br., p. 95) that the sinking fund method as applied by the Commission in this case is similar to the usual accounting and financial treatment of this device, citing R. pp. 2096 and 1910, *et seq.* The record cited does not bear out that statement. The accountant Cooke, at R. p. 1910, was discussing the operation of the sinking fund method of computing reserves; but nowhere in his testimony did he assume that

the interest rate should be the same as the rate of return. The same is true of the witness Kleinman. He was not testifying about the formula used by the Commission. Nowhere in their discussion of this subject (Br., pp. 95-100) do the Commission and complainant point out any case in which a regulatory commission has ever used the method of computing amortization reserves adopted by the Commission, or in which any court has ever approved such a method of computation. Cross-petitioners confidently assert that there are no such cases, and in this they are supported by a formal declaration of the Interstate Commerce Commission. After approving the real sinking fund method of computing amortization reserves, such as that submitted by cross-petitioners here, the Interstate Commerce Commission expressly rejected the method employed by the Commission, referring to it, not as the sinking fund method, but as the "annuity" method. 177 *I. C. C. Rep.* 409-413. After explaining and discussing this method at some length, the Interstate Commerce Commission said:

> "The annuity method presents similar difficulties with respect to interest rate, or at least so it seems to us. Its proponents appear to feel that no difficulty would arise on that score, but we have seen no wholly satisfactory elucidation of this matter. Moreover, if we grasp the idea underlying this method, it would import into public regulation of utilities a theory with respect to property values *which, even if economically sound, seems impracticable of application to such regulation. At all events, it never has been applied, so far as we are aware.* That theory is that value is dependent upon capacity to produce income. The difficulty of using such value as the basis of determining what income public regulation shall allow has many times been pointed out. The further complications which would arise in the case of properties, like those of the railroad companies, which have widely varying earning power, even under public regulation, are evident." (Italics ours.)

The Commission and complainant admit (Br., p. 100) that the method employed by the Commission requires cross-petitioners to look for their interest on the amortization reserve to the earnings of the business, which involves "some risk to them." They admit also that if the straight line method, or an actual sinking fund rate of 2%, compounded semi-annually, had been employed, this risk would not be present. Cross-petitioners submit that they should not be subjected to such risk. The purchasers are subject to no risk in the payment, through rates, of the annual allowances for amortization, and, therefore, are entitled to no more than the yield on risk-free securities.

The method employed by the Commission not only requires cross-petitioners to look to their risky earnings for the recovery of that part of their capital charged up as interest on the reserves, but requires them to look to the most uncertain and risky bracket of their earnings for such interest. The operating expenses must be paid first. Next in order would follow the reduced annual allowance for amortization. The interest would have to come from the remainder, which is extremely hazardous because of fluctuations from year to year, as indicated by the drop of more than $1,000,000 in the revenues of 1938 below those of 1937.

Assuming, but denying, that the Commission can limit cross-petitioners to a return of 6½% on the annual unamortized balances, cross-petitioners submit that they are entitled to that reasonable return *each year* of the period. They can not be required to take the allowed return on less than the unamortized balance in 1940, 1941, and each of several years thereafter, on the theory that during the later years of the period the allowed return will tend to make up the deficiency. That clearly is the practical effect of computing the amortization reserve by the method adopted by the Commission.

In regulating a business of such limited life, and of such uncertain life, as that of cross-petitioners, it is inconceiv-

able that the Commission would be permitted to defer many millions of dollars of the accruals for amortization to the later part of the estimated life. Such a procedure would subject cross-petitioners to the extreme danger of losing a very large part of their capital, running into millions of dollars, if by reason of any of the contingencies confronting them the life of their project should be short, by any substantial period, of that now estimated. An order unnecessarily subjecting cross-petitioners to such peril would clearly be a denial of due process.

Manifestly, therefore, if cross-petitioners can be limited to a reasonable return on only the annual unamortized balances, the amortization allowances must be computed by the straight line method to insure as far as practicable the return of their capital. This principle is recognized by the Interstate Commerce Commission, which allows a return on the undepreciated balances, but computes the depreciation allowances by the straight line method, in the regulation of telephone and railroad companies, continuing utilities, as already pointed out. 177 Interstate Commerce Commission Reports 413. It necessarily follows that in testing the method of computation employed by the Commission to determine whether or not it, in fact, allows a return of the full amount to be amortized plus an earning *each year* on the unamortized balance, the amortization allowance must be determined by the straight line method.

For the convenience of the Court, cross-petitioners have caused a copy of Sheet 3 of Exhibit 182 (R. Vol. VII, p. 3557), on which the Commission and complainant rely, as above pointed out, to be included in this brief as Appendix A (*infra*, p. 103). A tabulation which, cross-petitioners submit, shows the fallacy of this theory is also included as Appendix B (*infra*, p. 105). An examination of Sheet 3 of Exhibit 182 (*infra*, p. 103) discloses that the investment used in the illustration was assumed to be $1,000,000 and the period of

amortization to be ten years. If the entire $1,000,000 is to be returned through amortization, it would be necessary, then, that $100,000 be set aside each year as an amortization reserve. From Column B of this exhibit it appears that only $69,029 is actually allowed in the earnings for amortization, and at the end of ten years the total amount returned through that allowance is only $690,290. It appears from Columns C and D that the difference between the sum last mentioned and $1,000,000, *amounting to $309,710*, is made up of interest charges on the accruals at 8%, the assumed rate of return. Column I of the exhibit shows the purported return of 8% per annum on the entire $1,000,000, or an aggregate of $800,000 during the ten years; but Column J shows that Ostrander, who prepared the exhibit, was contending that the 8% should be calculated, not on $1,000,000, but on a steadily declining rate base, which was reduced each year, not by the annual accruals actually paid into the amortization fund, *but by those accruals plus compound interest thereon at the rate of 8%*, so that at the end of the ten year period the actual return would be, not $800,000, but $490,200. Column K shows that the rate of return on the so-called net investment, resulting from the subtraction each year of the accrued allowances for amortization *plus compound interest thereon at 8%* from the original sum of $1,000,000, is 8%, and that the average return over the entire period is 8%.

The fallacy of the computation when applied to the year to year operations is demonstrated in Appendix B (*infra*, p. 105). Column A of this computation shows an actual return to the investor of his $1,000,000 over the ten year period at the rate of $100,000 a year. Column B shows the unamortized balance at the beginning of each of the ten years. Column C shows the return on the unamortized balance for each of the ten years at 8%. Column D shows the total of the annual allowance for amortization, shown in Column A, and a return of 8% on the unamortized

balance for each of the ten years, shown in Column C. Column E shows the annual allowance for amortization and return assumed by Ostrander in Sheet 3 of Exhibit 182 (*infra*, p. 103). Column F shows the deficit resulting from subtracting the annual totals shown in Column E from those shown in Column D.

Thus it appears that for the first year there is a deficit in the earnings allowed below an earning of 8% on the unamortized balance of $30,971. In the second year there is a similar deficit of $22,971; in the third year a similar deficit of $14,971; and in the fourth year a similar deficit of $6,971. Not until the end of the fifth year does the amount allowed in Ostrander's calculation equal the necessary allowance for amortization plus a return of 8% on the unamortized balance for the year. It is true that the allowances used in Ostrander's illustration for the last five years of the ten year period exceed the amount necessary for those years by a total amount sufficient to wipe out the deficit for the first five years; but, cross-petitioners submit, the Commission can not require a regulated company to accept less than a reasonable return on the unamortized balance for each of the first five years on the theory that such company *may* recoup the deficits during the last five years of the period.

Due process protects the regulated company against its being required thus to gamble with its right to a reasonable return on the value of its property in use during 1940 on the theory that the deficit will be made up in 1949. Many things may intervene before the end of the ten year period which would prevent the recoupment of such deficits. In the case of a natural gas company the source of supply might be exhausted well in advance of the date assumed by the Commission. Indeed, in the present case the record shows conclusively that the reserves of gas will be exhausted prior to that date, though there is no way of estimating accurately the exact date of their exhaustion (R.

Vol. II, p. 695). The record also shows without contradiction that during the last two years of cross-petitioners' operations their earnings will be reduced far below those allowed for amortization and return under the order of the Commission (Exhibit 142, p. 2, line 23, R. Vol. V, p. 3031, Vol. III, p. 1414). Any number of other contingencies might make it impossible for cross-petitioners to earn the net revenues allowed, such, for illustration, as increased taxes incident to the life and death struggle in which our country finds itself.

Now let us apply the erroneous assumption that cross-petitioners are entitled to a return on only the annual unamortized balances, and determine the effect of the Commission's order upon the operations of cross-petitioners. To illustrate this result cross-petitioners have caused Appendix C (*infra*, p. 107) to be prepared and inserted in this brief. This exhibit consists of three blocks of five columns each. In these computations cross-petitioners use as the proper amount to be amortized $84,341,218, and as the proper rate base $82,291,553, and for purposes of comparison the sum of $6,395,180, the amount allowed by the Commission in its order for amortization and return.

In Block 1 an amortization period of 16½ years, the approximate time between the effective date of the Natural Gas Act and the exhaustion of cross-petitioners' reserves of natural gas, is assumed. By dividing $84,341,218, the amount to be amortized, by 16½ we arrive at $5,111,587, the amount which must be set aside each year for amortization on the straight line method of computation. The return is calculated on a basis of 6½% per annum, the rate of return allowed by the Commission in its order. Each of the five columns bears a caption which is self-explanatory. The column "Interim Order Deficiency," of course, refers to the deficiency resulting from the subtraction of $6,395,180, the amount allowed by the Commission each

year for amortization and return, from the amount necessary to set aside $5,111,587 for amortization each year and to pay a 6½% return on the unamortized balance each year, which last figure is reflected in the column captioned "Total Requirements Amort. & Return." From these figures it appears that for the last half of the year 1938 (the Natural Gas Act was approved June 21, 1938) the return on $82,291,553, which cross-petitioners contend is the proper rate base, at 6½% per annum would be $2,674,475. If this sum be added to half of $5,111,587, the required amortization allowance, the result is $5,230,270. Half of $6,395,180, the amount allowed by the Commission, is $3,197,590. *This amount subtracted from the figure representing the requirements for amortization and return leaves a deficit for that six months' period of $2,032,680!*

In 1939 the unamortized balance shown is $79,737,758. A 6½% return on that amount would be $5,182,824, which added to the amount necessary for amortization makes a total required for amortization and return of $10,294,413. The deficit for the first full year turns out to be $3,899,233, which, added to the deficit for the second half of 1938, makes an accrued deficit of $5,931,913. As the rate base goes down, the deficit from year to year slowly decreases; but the accrued deficit mounts. For the year 1940, the year in which the order was entered, the deficit is $3,566,980, and the accrued deficit at the end of that year is $9,498,893. In the current year, 1942, cross-petitioners will receive $2,902,473 less than 6½% on the unamortized balance; and the accrued deficit at the end of this year will have mounted to $15,636,093. Not until the year 1951 does the amount allowed equal the requirement for amortization and a 6½% return on the unamortized balance at the beginning of that year; and at the end of that year the accrued deficit below a return of 6½% on the successive annual unamortized balances has increased to the staggering sum of $26,806,956. The returns for the last four

years decrease the accrued deficit from year to year; but at the end of the project's life an accrued deficit of $24,550,018 still remains. *That means that over the period cross-petitioners will have been deprived, by the amount last stated, of a 6½% return on the unamortized balance during each year!*

Block 2 is similar to Block 1 except that in this group of figures the amortization period is assumed to be 14 years 5 months, the period intervening between the date of the order, August 1, 1940, and the end of 1954, when cross-petitioners' reserves will have been exhausted. The annual amount for amortization resulting from the division of the amount to be amortized by 14-5/12 is $5,850,258. An examination of these figures shows that for the remainder of 1940 the deficit below a 6½% return on the rate base is $2,001,660. In 1941 the deficit is $4,265,584, with an accrued deficit of $6,647,244. In 1942 the deficit is $4,265,318, and the accrued deficit has mounted to $10,912,562. *Not until the last year of the project's life does the amount allowed by the Commission pay a return of 6½% on the unamortized balance for any year, and at that time the accrued deficit will be $32,435,565!*

Block 3 was added merely for the purpose of showing that, even if it were proper for the Commission to spread the amortization over the entire 23 years of the project's life, which cross-petitioners deny, the order still operates to reduce cross-petitioners' returns below a 6½% return on the unamortized balance each year by an aggregate of many millions of dollars. Thus in 1940, the year in which the order was entered, the amount allowed falls short by $713,935 of 6½% on the unamortized balance; and as of the end of that year the accrued deficits will have mounted to $15,006,218. Not until near the end of 1943 will the amount allowed for amortization and return be sufficient to cover the required amortization allowance plus a return of 6½% on the unamortized balance; and as of the end of

that year the accrued deficit will have mounted to $15,717,891. The earnings for the succeeding years gradually reduce these deficits; *but it is not until 1954 that the deficit is wiped out!*

It is obvious that substantial deficits will obtain without regard to the amount allowed for amortization and for rate base, whether the period of amortization be 10 years, 14 years 5 months, 16½ years, 23 years, or any other number of years. *The trouble is with the method employed by the Commission.* It is unsound, and its operation is disastrous from the standpoint of cross-petitioners. If this Court finds that 14 years 5 months is the proper period of amortization, as did the court below, the operation of the Commission's order limits cross-petitioners' earnings to an amount $32,435,565 less than the rate of return allowed if applied to the unamortized balances each year. If the Court finds that 16½ years is the proper period of amortization, the operation of the Commission's order limits cross-petitioners to $24,550,018 less than the allowed rate of return if applied to the unamortized balances each year. Even if the 23 year period, erroneously adopted by the Commission, were proper, the effect of the order is to limit cross-petitioners to a return from year to year which at the end of 1942 will aggregate $15,719,022 less than the rate of return allowed if applied to the unamortized balances each year. It is no answer to say that this deficit of almost sixteen million dollars may be made up during the years 1943 to 1954 inclusive. Even if it could be certain that it would be made up over that period, the order would be invalid. Cross-petitioners had property and facilities of the value of more than $80,000,000 in the year 1940. They are entitled to a reasonable return on the value of that property, not $4,645,584 less than such a reasonable return (Appendix C, Block 2, *infra*, p. 107), *and they are entitled to such return in 1940, not in 1950 or 1954.* They are entitled to use that money

from and after 1940, and can not be made to wait ten years or twelve years before receiving compensation for the use of their property in 1940.

It will avail the Commission and complainant nothing to take the position that it is the amortization rather than the return on the unamortized balances that is deferred until later years, as suggested in their brief (p. 91). Under that view the fact still remains that the deficit is there, whether it be called a deficit in earnings or a deficit in amortization allowance. During the first years of operation the allowance falls short of the proper provision for amortization and a return of 6¼% on the unamortized balance. Cross-petitioners have already pointed out (*supra*, p. 62) that the Commission is without authority to limit cross-petitioners to an unnecessary gamble for a return of their capital by deferring a large part thereof to the last years of their operations.

Cross-petitioners may never recoup these deficiencies. As already suggested, the gas reserves may be exhausted earlier than now anticipated. Their cost of delivering the gas, their taxes, and other expenses may make it impossible for them to earn the amount necessary to recoup these deficiencies, even if their gas holds out over the whole period. Many contingencies may intervene to make it impossible for them ever to get their money. The Commission gives them only a gamble that by the end of 1954 they might, if they can earn it, recoup the deficits which are accruing and mounting up from year to year during the first years of the period of amortization. The Fifth Amendment protects cross-petitioners against being subjected to any such gamble.

The limiting of the return allowed cross-petitioners to a reasonable return on the annual unamortized balances on the straight line method is unfair as between present and future purchasers of natural gas.

Cross-petitioners submit that they have demonstrated that the Commission is without power, under the Fifth Amendment, to limit cross-petitioners' returns to a reasonable return on the unamortized annual balances. They have shown that the method of calculating the amortization reserves employed by the Commission does not allow even that inadequate return. If it be assumed, however, that cross-petitioners can not complain if allowed earnings sufficient to return to them the proper amount to be amortized plus a reasonable return on the annual unamortized balances, then cross-petitioners submit that such a procedure is unfair as between present and future purchasers of natural gas. The rate base on which the reasonable return must be allowed in 1938 was $82,291,553. Referring to Block 1 of Appendix C (*infra*, p. 107), it is noted that the rate base for the year 1954 will be $3,061,923. Thus it appears that under the application of the principle of allowing a return only on the unamortized balance each year, after providing for amortization by the straight line method, the purchasers in 1938 would be required to pay a 6½% return on a rate base higher by $79,229,630 than would the purchasers of gas in 1954. This means that the purchasers would pay $5,156,500 more money for the same quantity of gas in 1938 than would the purchasers in 1954, although both groups of purchasers would be purchasing gas of the same quality from the same reservoir, transported through the same system over the same distance.

This inequity among present and future purchasers must be avoided by distributing the cost of gas evenly over the whole period; but this must be done in such manner as

to protect the constitutional right of cross-petitioners to receive the value of their property devoted to the public interest as of the termination of the project's life, plus a reasonable return on the property during the time that it is subjected to public use. They have an absolute right to an allowance which will reimburse them for the value of their property as of the end of 1954, when their supply of gas will have been exhausted. It is only to meet the practical situation that the reimbursement is provided by annual installments allowed in fixing the rates. *If it were practical for the purchasers of gas to retain the money represented by the annual amortization installments, how would they have to handle these funds, which manifestly would be trust funds?* They could not speculate with it, or even put it to risk. It would be necessary for them to put the money in the bank and allow it to remain there idle, or to invest it in securities of such high order as that they could be certain of their ability to liquidate these securities on December 31, 1954. If they took the latter course it would be necessary, as this record shows, for them to invest this money in securities which would pay a return of not more than 2% per annum, compounded semi-annually. By so doing, they could use the interest earned from such an investment to apply on the total amount to be returned to cross-petitioners at the end of the period. *They are not hurt, therefore, if the funds be turned over to cross-petitioners as they accrue, so long as they are protected to the amount of this interest in the fixing of the annual allowance for amortization.* They are so protected in the amortization allowance for which cross-petitioners contend. Cross-petitioners submit that there is no other basis upon which the annual allowance for amortization can be calculated which will at once protect the constitutional rights of cross-petitioners, compensate the purchasers for the payment in advance of these annual installments, and equitably distribute the cost of gas over the whole period of amortization.

C. The Rate of Return Fixed by the Commission Is Confiscatory.

In their original brief (pp. 175-215), cross-petitioners undertook to demonstrate, and, they submit, did demonstrate, that the allowance of a 6¼% return on the rate base allowed is confiscatory as a matter of law. They went into the evidence at considerable length. The Commission and complainant have not answered the argument there presented. Cross-petitioners will not burden the Court here with a repetition of the argument; but they still insist that, in view of the fact that they are engaged in a business of extraordinary perils and hazards, recognized by regulatory bodies and by the courts as subjected to much greater risks than any other of the regulated industries, all of which they pointed out in their original brief, the order must fall because predicated upon this inadequate and confiscatory rate of return.

The Commission clearly gave no consideration to any elements entering into a proper rate of return except that of cost of capital; and in its zeal to reduce cross-petitioners' earnings to the level which would leave them not one penny in excess of the cost of capital, it failed to analyze the testimony in the light of the admissions of its own witness Smith on cross-examination and the figures revealed by Exhibit 209 (R. Vol. VII, pp. 3895-99) correcting the admitted errors contained in Smith's Exhibit 186. This cross-petitioners pointed out in detail in their original brief (pp. 204-214).

Notwithstanding there were several thousand pages of testimony and exhibits dealing specifically with rate of return, and notwithstanding the fact that cross-petitioners set out and analyzed the testimony throughout 40 pages of their original brief, the Commission and complainant are able to set down all they can find in the record which they

assert supports the findings of the Commission in less than six pages of their brief (pp. 101-106), and on these six pages numerous statements concerning the facts are so at variance with the record that they disclose an utter lack of memory as to what the record shows. For instance, they state (p. 102) that, "Specifically securities of natural gas companies were being sold at rates of from 3 to 6 per cent with the yields on the bulk of the bond issues falling between 3 and 4 per cent." Those figures are not borne out by the inaccurate facts submitted by Smith, which were corrected by Exhibit 209, prepared by Gilman. Smith's Exhibit 186, Schedule 5A (R. Vol. VII, p. 3747) shows that the approximate yield to maturity on bonds of natural gas companies sold in 1939 ranged from 3.55% to 6.35%, and that the average yield was 4.02%. In Schedule 6 of the same exhibit (R. Vol. VII, p. 3777) it appears that the average yield to the public on the issues of bonds listed there was 3.9%; but other figures on the same page show that the cost to the company ranged from .23% to .85% in excess of the yields to the public.

The Commission and complainant assert (Br., p. 102) that interest rates were at a low level on all forms of long and short term investments, and that rates of return demanded by investors were among the lowest that ever existed. They overlook entirely the circumstance that their own witness Knapp admitted on cross-examination that these interest rates reflected yields on the highest types of liquid loans, and that the figures indicated to him that the investor was demanding a greater compensation for the risks he undertook in 1939 than in 1936 or 1927. He added that the investor is willing to accept a lower yield in order to secure safety of principal and income (R. Vol. IV, p. 2125). Obviously, that situation created an oversupply of capital seeking investment in types of securities that were reflected in the studies of bankable notes and other liquid securities. It is just as obvious that under [illegible] condi-

tions it would have been more difficult, and not less difficult, to accomplish the overall financing of a natural gas company in 1939 than in those earlier years. This is clearly demonstrated by page [illegible] of Exhibit 209 (R. Vol. VII, p. 3899), from which it appears that on stocks sold in 1939 investors were demanding a yield in terms of per cent earnings to latest quotations of 10.45%, which, when added to the cost of financing through issues of common stock of at least 10%, brought the cost of raising capital through common stock issues by natural gas companies to about 11½%. Contrast that figure with the finding of the Commission that financing through common stock issues would cost only 10% (R. Vol. VIII, p. 3939).

The Commission and complainant assert (Br., p. 102) that the evidence shows that profits earned by industrial corporations declined from 11.3% on invested capital in 1929 to 5.1% in 1938; that utility corporation profits declined from 7.2% to 5.1%; and that for railroad corporations the decline was from 6.4% to 2.3%, citing Exhibit 185, Schedule 17. A reference to that schedule reveals an interesting fact of common knowledge which they did not deem it necessary to point out, namely, that 1938 was the worst year from a business standpoint of any year after 1934. It discloses that in 1937 the profits of industrial corporations were 10.1% and that the recession in 1938 cut these profits practically half in two. It is a matter of common knowledge, of which this Court will take judicial notice, that following the recession in 1938 conditions improved and that in 1939 the earnings were back to the approximate level of 1937. The figures quoted by the Commission and complainant (Br., p. 103) from the earnings history of cross-petitioners emphasize the unfairness of using 1938 as a basis of comparison. In 1937 cross-petitioners' net profits aggregated $4,547,717. In 1938 they dropped more than a million dollars to $3,514,249.97. By August 31, 1939, they were back at substantially the same level as in 1937.

Is it fair to cross-petitioners to cut their earnings in 1939 or 1940, when conditions had changed entirely, in order to conform them to the level of earnings in the recession year 1938?

The argument (Br., p. 103) that the evidence shows that cross-petitioners faced no extraordinary risks, but even less risk than is confronted by the ordinary utility, shows the desperate straits in which the Commission and complainant find themelves. Not only does this record abound with testimony to the contrary, as pointed out in cross-petitioners' original brief (pp. 175-215); but, in the absence of any testimony, this Court would take judicial notice that the risks confronting continuing utilities, such as electric companies, telephone companies, or even distributors of manufactured gas, are in no sense comparable to the risks confronting this extractive industry, whose very life depends upon the continuance of an irreplaceable natural resource. Particularly is this true of a company like cross-petitioners, whose source of supply is located approximately 900 miles from its principal market and whose transportation problems in bringing this gas across 31 rivers and over every type of terrain are obvious.

Cross-petitioners submit that an examination of this record shows clearly that the finding of the Commission that 6½% is a reasonable rate of return to them is not supported by substantial evidence.

V.

Reply to the Argument That the Commission's Findings That Cross-Petitioners' Existing Rates Are Unreasonable and That the Level of Rates Fixed by the Commission Is Reasonable Are Supported by Substantial Evidence.

The Commission and complainant begin their discussion of this point (Br., p. 106) by an erroneous statement of the contentions of cross-petitioners. In their discussion of the

point in their original brief (pp. 145-166) cross-petitioners plainly stated their contentions. In substance, cross-petitioners contend that there is a distinction between a barely nonconfiscatory return and a fair return; that the rate of return is only one of the elements to be considered in determining whether or not an existing rate is unreasonable. Among the necessary elements to be considered are overall cost of capital, extraordinary risks, unusual creative skill in design and operation, extraordinary efficiency in management, and the value of the service to the consumers. Cross-petitioners demonstrated in their original brief that the Commission's objective clearly was *to reduce cross-petitioners' revenues*, and to determine the amount of the reduction by cutting the income down to a barely nonconfiscatory return; that the record shows clearly that the Commission gave no consideration to any of the elements entering into a fair rate of return, or a reasonable return, except the single element of cost of capital, and that it did not make provision even for the necessary overall cost of capital. They demonstrated also that a large percentage of the claimed excess over and above, not a fair return as stated by the Commission and complainant, but the Commission's conception of a return which would cover only the cost of capital, is accounted for by creative genius and engineering skill in the design and construction of cross-petitioners' facilities, through which they transport a very substantially greater volume of natural gas per unit of steel employed than was ever known to the business prior to the construction of their facilities, and by the sustained efficiency in management through which cross-petitioners have operated, and are operating, with an annual load factor very substantially in excess of that ordinarily attained by natural gas pipeline companies. Those purchasing gas from cross-petitioners must be satisfied with the prices they are paying for such gas; for none of them is here complaining of such prices.

Cross-petitioners' contention was, and is, that their returns are not *per se* unreasonable because they exceed the Commission's conception of the return barely necessary to cover the cost of refinancing cross-petitioners' properties; that the Commission and complainant must prove that the excess, in the light of the risks, the engineering skill, the efficiency in management, and the value of the service to cross-petitioners' customers, constitutes the rates unjust and unreasonable; that no effort was made by the Commission and complainant to demonstrate, by evidence, that in the light of those circumstances the alleged excess constituted the existing charges unjust and unreasonable.

The Commission and complainant set out the history of Section 6 of the Natural Gas Act and its predecessor, Section 208 of the Federal Power Act, with which it is identical, and arrive at the conclusion that the Commission is authorized under that section of the Act to establish reasonable rates on a prudent investment basis. Cross-petitioners submit that that argument is neither relevant nor logical. In the first place, the Commission did not adopt the prudent investment theory in this case, but purported to fix the rate base on the present fair value theory. This it was required to do under the decisions of this Court, including not only *Smyth* v. *Ames* but numerous other decisions, in which that doctrine has been reaffirmed over and over, until the American people have come to regard it as the settled law of the land. In the second place, far from showing that the Congress intended to invade the province of this Court in construing the Constitution or to set aside the operation of the Fifth Amendment as construed by this Court, the history set out by the Commission and complainant (Br., pp. 107-9) shows conclusively that the Congress did not attempt to do any such thing. Let it be granted for the purposes of argument that the original Utility Act, of which the Federal Power Act is a part, was

so worded as clearly to import a purpose on the part of its author to substitute the prudent investment theory of rate making for that based on present value, and let it be assumed also that the Senate Committee on Interstate Commerce recommended that course. The fact remains that the Congress did not pass the bill as originally written; but by adding language to Paragraph (a) of Section 208 and striking out entirely Paragraph (c) thereof, it clearly approved the existing law and rejected the suggestion that it attempt to change it. It will be noted that to Paragraph (a) was added the language: "and, when found necessary for rate-making purposes, other facts which bear on the determination of such cost or depreciation and the fair value of such property." The addition of that language itself is tantamount to a recognition by Congress that when it came to a matter of rate-making it was necessary for the Commission to determine the fair value of the property. It was Paragraph (c) of the proposed bill which, had it been enacted, would have constituted an attempt to substitute the prudent investment theory for the fair value basis of regulation, and that paragraph was stricken out entirely. How the Commission and complainant could reach the conclusion that the rejection by the Congress of Paragraph (c) and the amendment of Paragraph (a) of Section 208 was intended by the Congress to confer on the Commission the authority to ignore the present fair value basis of rate regulation and substitute therefor the prudent investment theory is inconceivable.

Cross-petitioners feel that they have covered the subject fully in their original brief, and they submit that the Commission and complainant have not met the argument there presented.

VI.

THIS COURT SHOULD NOT OVERRULE SMYTH v. AMES.

A. The Validity of the Rule of Smyth v. Ames Is Not Here Involved.

The validity of the rule of *Smyth* v. *Ames*, 169 U. S. 466, as to rate base and amount to be amortized is not here involved for three reasons:

(1) This case involves condemnation to public use of the property of a strictly private enterprise in 1938 when the Natural Gas Act was passed or in 1940 when regulation was imposed upon cross-petitioners. This, of course, assumes the validity of the Natural Gas Act. There was then an actual taking of the use of cross-petitioners' *property* and not of the investment made in 1930 and 1931. Just compensation for the use of that property must be given. This is not the case of an investor who furnishes money for the conduct of a public utility operating under a franchise. It is a case of condemnation of the use of *property*.

(2) The rule of *Smyth* v. *Ames* is a rule of constitutional protection. It may furnish basis for a principal issue in a case in a Federal District Court in which the utility as plaintiff attacks rates imposed by a regulatory body as confiscatory under the Fifth or Fourteenth Amendments. In such a case the plaintiff utility has the burden of proving confiscation. Here, however, this case arises not from a District Court, but from a regulatory proceeding before the Commission under the Natural Gas Act and a review of those proceedings by the Circuit Court of Appeals. Under Section 19 of the Natural Gas Act the review involves not only errors resulting in confiscation,

but any errors of law and errors resulting from the failure of the Commission to follow the statute creating and empowering it. It is submitted that the statute does not empower the Commission to fix rates on the basis of the prudent-investment theory. This question of statutory power does not involve the constitutional-protection issue of *Smyth* v. *Ames*.

(3) The validity of the rule of *Smyth* v. *Ames* was not raised in the court below and is not open here.

Cross-petitioners discuss briefly each of the foregoing reasons as to why *Smyth* v. *Ames* is not involved on this record.

1. This Is a Case of Condemnation of the Use of Property; It Does Not Involve Investment in a Franchised Public Utility.

The Commission and complainant argue (Br., pp. 20, 23-24, 112-133) that *Smyth* v. *Ames* should be overruled; that the proper basis for rate base and amount to be amortized is "prudent investment"; and that on such basis the Commission's order does not result in confiscation. This argument, whatever its validity, is applicable only to a public utility operating under franchise into which the investor puts his money knowing that he is committing it to a public enterprise. Even if it may be validly said that it is money and not the then money's worth in property which is invested in a public utility, such a proposition does not apply to this case.[3] Cross-petitioners invested their money

[3] In his concurring opinion in *Missouri ex rel. Southwestern Bell Telephone Company* v. *Public Service Com.*, 262 U. S. 276, Mr. Justice Brandeis, advocating the prudent-investment theory, said (p. 290):

> "The thing devoted by the investor to the public use is not specific property, tangible and intangible, but capital embarked in the enterprise."

This statement obviously does not apply to the instant case.

in a property in 1930 and 1931. This was a private property. It was the property as it existed in 1938 or 1940 which the Government condemned to public use. In determining just compensation therefor as of that time and since, no prudent-investment theory can be properly applied. It is this property and not contemplations of investment in a public utility which is involved. There is, therefore, no occasion on this record to consider whether *Smyth* v. *Ames* should be overruled and the prudent-investment theory adopted as the sole measure of constitutional protection. It is the property which cross-petitioners had in 1938 or 1940 which the Constitution protects, and not a theoretical non-existent past choice to invest.

As to period of amortization, the rule of *Smyth* v. *Ames* is plainly not involved. Clearly the period must be from the date of the taking of the use of cross-petitioners' property to the end of the project's life. The rate base must include the fair value of the property as of the taking. The amount to be amortized must include the fair value of the property as of that date. Both the rate base and the amount to be amortized must include the *cost* to cross-petitioners of developing their inert properties into a going concern.

2. Since the Natural Gas Act Empowers the Commission To Fix Rates Only on the Basis of Smyth v. Ames, the Error of the Commission in Not Following the Statute In Fixing the Amount to Be Amortized Is Plain and There Is No Occasion to Consider the Measure of Constitutional Protection Set Out in Smyth v. Ames.

The Natural Gas Act, Section 4(a), provides that "all rates and charges made * * * by any natural gas company * * * shall be just and reasonable." Section 5(a) provides that whenever the Commission, after a hearing, shall find that any rate is "unjust, unreasonable * * *

the Commission shall determine the just and reasonable rate." In Section 6(a) it is provided:

> "The Commission may investigate and ascertain the actual legitimate cost of the property of every natural gas company, the depreciation therein, and, when found necessary for rate-making purposes, other facts which bear on the determination of such cost or depreciation and the fair value of such property."

At the time this Act was passed (1938) a reasonable rate, as this Court had repeatedly declared for 40 years, was a rate above the line of confiscation established by *Smyth* v. *Ames*. It is perfectly clear that Congress in specifying "reasonable rate" meant a reasonable rate as was established by the law of the land and did not mean a rate which is reasonable in the eyes of some legal writers. If Congress had intended that the Commission follow some other standard, as for example the "prudent-investment" standard, it could and would have said so in plain and unmistakable language. It must be kept in mind that the Commission as a statutory creature has only those powers which are clearly and unmistakably by the statute granted to it. (See cross-petitioners' main brief, pages 216-218).

The rejection by Congress, in enacting the Federal Power Act, of a proposal for express authority to fix rates on the prudent-investment theory, is particularly pertinent. See the preceding section of this brief, pp. 78-79.

The language of Section 6(a) of the Natural Gas Act quoted above gives the Commission and complainant no comfort in trying to spell out an attempt by Congress to empower the Commission to fix rates on the prudent-investment theory. This language is not inconsistent with the application of the rule of *Smyth* v. *Ames*. Original cost is one of the factors to be considered under *Smyth* v. *Ames*. Likewise, reproduction cost new is to be considered under that case. However, the evidence as to reproduction cost new may be lacking entirely or so lacking in

probative value as to make its consideration unnecessary "for rate-making purposes." Cf. *Los Angeles Gas Co.* v. *R. R. Commission*, 289 U. S. 287, 312. The language of Congress in Section 6(a) does not empower the Commission to follow the prudent-investment theory. The language of the Act directs the Commission to fix "reasonable rates" which must be taken in the absence of anything clearly to the contrary to mean reasonable rates under the law of the land as it existed in 1938. The failure of the Commission to follow the statute in fixing the amount to be amortized constituted error and the decision of the court below is plainly right—regardless of any issue as to constitutional protection.

It is likewise clear that "reasonable rates" under the statute cannot be rates that will change entirely the character of the investment which cross-petitioners made in 1930 and 1931. That was an investment in a private enterprise; but even on the hypothesis that cross-petitioners should have foreseen regulation, they made the investment on the basis of the law as declared by this Court in *Smyth* v. *Ames* and the long line of decisions following that case. It is now urged by the Commission and complainant that it is "reasonable" to cut cross-petitioners' rates on the prudent-investment theory. Plainly Congress did not so intend. Assuming without admitting that Congress intended to empower the Commission to follow the prudent-investment theory, Congress at the very most could have intended that that theory be applied to investments in natural gas properties made subsequent to the Act. There is no basis for any other construction of the word "reasonable" as used in the Act.

Even ardent advocates of the prudent-investment theory recognize the unreasonableness of retroactive application of that dogma. Kauper, WANTED: A NEW DEFINITION OF THE RATE BASE, 37 Mich. L. Rev. 1209, 1233 *et seq.*; Cook, FAIR VALUE—A STATUTORY DEFINITION, 7 Geo. Wash. L. Rev. 475;

Bonbright, VALUATION OF PROPERTY (1937) 1155; New York Commission on Revision of Public Service Commission Law, Minority Report (1930, pp. 393-5).

3. The Validity of the Rule of Smyth v. Ames Is Not Here Involved Because This Issue Was Not Raised in the Court Below.

This Court in this case is reviewing a judgment of the Circuit Court of Appeals to determine the correctness of that judgment. As shown by the petition for review (R. VIII, pp. 3997-4019) and by the opinion of the Circuit Court of Appeals (R. VIII, pp. 4025, 4042), the question of the validity of the rule of *Smyth* v. *Ames* was neither raised nor decided in that Court. This Court should not consider issues not raised below.

Denver Union Stockyard Co. v. *U. S.*, 304 U. S. 470, 484-5.

Duignan v. *U. S.*, 274 U. S. 195, 200.

Virtue v. *Creamery Package Mfg. Co.*, 227 U. S. 8, 38-39.

The overruling of *Smyth* v. *Ames* clearly should not be considered on a record such as this where there is no evidence as to the practicalities of alternative suggestions. The assertions of the Commission and complainant as to the practicalities of the prudent-investment theory are based not on evidence as to the facts concerning utilities, but only on hearsay. The assertions of the Commission and complainant are lacking the ordinary tests of cross-examination.

B. The "Present-Value" Rule of Smyth v. Ames Is Sound.

The Commission and complainant, in their brief (pp. 112-133) and in their supplement to their brief, attack *Smyth* v. *Ames*. Among their arguments is that that case is contrary to "the overwhelming weight of professional opinion" (Br., 113). In Appendix A to the supplement to their brief (pp. 42-94) the Commission and the complainant set out quotations from periodicals and other sources attacking the doctrine of *Smyth* v. *Ames*. Cross-petitioners deny that the opinion referred to is "overwhelming" and deny that it is sound. This is not the first case in which this so-called "overwhelming weight of professional opinion" has been presented to this Court. The controversy has raged in the periodicals for years. This Court, although the arguments against *Smyth* v. *Ames* have been urged upon it with much explanation, has consistently held to the views expressed in *Smyth* v. *Ames*. In the footnote are cited cases in which this Court has followed the rule of *Smyth* v. *Ames*.*

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* *San Diego L & T Co.* v. *National City*, 174 U. S. 739 (1899); *San Diego L & T Co.* v. *Jasper*, 189 U. S. 439 (1903); *Stanislaus Co.* v. *San Joaquin Co.*, 192 U. S. 201 (1904); *Knoxville* v. *Knoxville Water Co.*, 212 U. S. 1 (1909); *Willcox* v. *Consolidated Gas Co.*, 212 U. S. 19 (1909); *Cedar Rapids etc. Co.* v. *Cedar Rapids*, 223 U. S. 655 (1912); *Minnesota Rate Cases*, 230 U. S. 352 (1913); *Des Moines Gas Co.* v. *City*, 238 U. S. 153 (1915); *Galveston Electric Co.* v. *Galveston*, 258 U. S. 388 (1922); *Missouri ex rel. S. W. Bell Telephone Co.* v. *Public Service Commission*, 262 U. S. 276 (1923); *Bluefield Water Works Co.* v. *Public Service Commission*, 262 U. S. 679 (1923); *Georgia Railway & P. Co.* v. *Railroad Commission*, 262 U. S. 625 (1923); *McCardle* v. *The Indianapolis Water Co.*, 272 U. S. 400 (1926); *St. Louis and O'Fallon Railway Co.* v. *U. S.*, 279 U. S. 461 (1929); *United Railways* v. *West*, 280 U. S. 234 (1930); *Los Angeles Gas & Electric Corp.* v. *R. R. Com.*, 289 U. S. 287 (1933); *West* v. *Chesapeake & Potomac Telephone Co.*, 295 U. S. 662 (1935); *St. Joseph Stockyard Co.* v. *U. S.*, 298 U. S. 38 (1936); *R. R. Com.* v. *Pacific Gas & Electric Co.*, 302 U. S. 388 (1938); *Denver Union Stockyards Co.* v. *U. S.*, 304 U. S. 470 (1938); *Driscoll* v. *Edison Co.*, 307 U. S. 104 (1939).

Before taking up the many criticisms of *Smyth* v. *Ames* made by the Commission and complainant, cross-petitioners urge two broad considerations against the overruling of *Smyth* v. *Ames*, particularly at this time.

1. To eliminate the plurality of factors enunciated in *Smyth* v. *Ames* as employable in the determination of a proper rate base and the amount to be amortized, and to substitute therefor the single one of original cost or "prudent investment", will result in continuous exaction of high rates from consumers on investments during periods of high prices and inflated values. If the investor is so prudent or so favored by chance as to make his investment in such a period, the public must continue to pay high rates throughout the remainder of the property's life. We are now in an era of rising prices. A further rise in prices in the next few years is indicated. If this Court should set up prudent investment as the sole constitutional protection, utilities built in the next few years will be enabled to saddle war prices on rate payers over the next generation. They will also be enabled to collect substantially higher compensation for their services than will others whose facilities were built some time ago and who are rendering the same services.

2. Investments have been made in utilities on the basis of a return on the principle of *Smyth* v. *Ames*. An overthrow of this principle at this time may seriously disrupt and disorganize these utilities. Many such utilities are vital to the Country's present needs.

The Commission and complainant argue first (Br., 113-116) that the "fair value" rule of *Smyth* v. *Ames* is based on eminent domain concepts. Cross-petitioners submit that this is correct. The *use* of the property is taken.[5] From this premise, the Commission and complainant argue that this Court has acted on inconsistent principles in follow-

[5] *West* v. *Chesapeake & Potomac Tel. Co.*, 295 U. S. 662, 671.

ing *Smyth* v. *Ames;* to-wit, this Court has said on the one hand that rate regulation is valid and on the other hand that rate regulation must secure to the property owner "just compensation" in the sense in which that term is used in the law of eminent domain (Br., 122). The Commission and complainant arrive at this inconsistency by asserting that in the law of eminent domain, value depends upon earning power and that this method of determining value is inapplicable to rate regulation because earnings are the very thing in issue.

The Commission and complainant thus create a dilemma. They assert that the "present fair value rule created but offers no way out of this dilemma" (Br., 116). The dilemma which the Commission and complainant create is, in fact, nonexistent. Other factors than earnings enter into a determination of value both for purposes of eminent domain or exchange value and rate regulation. This Court has not been misled by the assertion of this so-called "dilemma", which has been much discussed by academic writers. In *Los Angeles Gas Co.* v. *R. R. Com.*, 289 U. S. 287, this Court, speaking through Chief Justice Hughes, said (p. 305):

> "* * * when rates themselves are in dispute, earnings produced by rates do not afford a standard for decision."

Having erroneously attempted to rid rate regulation of all concepts of or analogy to eminent domain, the Commission and complainant next argue that regulation is based not on a "taking", but on an exercise of the police power. It has already been pointed out that regulation does involve a taking of the *use* of property. This is particularly true with respect to cross-petitioners. They were a private enterprise, exercising a normal freedom of private contract. They did not hold themselves out to serve all who might apply. The use of their property was clearly taken in 1938 when the Act was passed, or 1940 when

actual regulation commenced. Under Section 7 of the Act, cross-petitioners cannot, without risk of criminal penalties (Sec. 21 of the Act), abandon their properties without the permission of the Commission, which permission this Court has termed "illusory". *Wolff Packing Co.* v. *Court*, 262 U. S. 522, 534. Cross-petitioners cannot, without risk of criminal penalties, fail to obey an order of the Commission directing them to extend their services and facilities (Sec. 7 of the Act). Cross-petitioners cannot extend their facilities to a market which is already being served by another natural gas company without the permission of the Commission (Section 7).

Despite these facts, the Commission and complainant assert (Br., 126, footnote 41) that

> "no question of forbidding abandonment or compelling an extension is involved here."

Because cross-petitioners have not sought to abandon facilities and have not been compelled to extend facilities, the Commission and complainant would have these powers over cross-petitioners ignored on the question of the taking of the use of cross-petitioners' property. The Commission and complainant further say (Br., 126, footnote 41):

> "The duty to continue or extend service is based upon the community's dependence *for which the utility is responsible.*"

This statement is contrary to fact as applied to cross-petitioners. By no stretch of the imagination can it be said that the Chicago area is the responsibility of cross-petitioners. It could as well be said that a Texas grapefruit peddler who has supplied the Chicago market is responsible for the community's dependence on grapefruit. Cross-petitioners started their enterprise as a purely private business. They obtained no franchise from the Chicago area or from others. They are not responsible for the Chicago area's alleged dependence upon them. Certainly this alleged dependence, for which cross-petitioners

are not responsible, is no ground for saying that it can be the basis for requiring cross-petitioners to continue or extend their service.

The plain fact is that by virtue of the Act, or by virtue of regulation thereunder, the use of cross-petitioners' property was taken. Just compensation under the Constitution demands a fair return on the fair value of the property at the time it was taken and a return to cross-petitioners of that fair value by the end of the project's life. The Commission and complainant cite numerous cases (Br., 124-125) in which the valid exercise of police powers are alleged to diminish the value of property without compensation. It is sufficient to point out that cross-petitioners are not violating fish protection statutes, are not manufacturing oleomargarine, etc.

The Commission and complainant next urge that under the police power it is not unreasonable to limit the earnings of a utility to a fair return upon the capital prudently invested (Br., 127-132). The Commission and complainant are quick to point out that in urging prudent investment as the sole protection afforded by the Constitution, they do not urge "that a legislature may not lawfully select other standards suggested by sound business practice" (Br., 128). By their argument, however, they do necessarily contend that the Constitution protects only against rates which yield less than a fair return on the prudent investment. The Commission and complainant say that their argument for prudent investment "requires little elaboration" (Br., 128). This is true, because the arguments advanced are the same arguments which this Court has, over the years, consistently rejected as unsound.

The Commission and complainant acknowledge that the prudent-investment theory does not allow the investor in utility property "the same *appreciation* in values which owners of other property enjoy in times of prosperity,"

but assert that the prudent-investment theory saves utility investors "from the depreciation in values from which investors in other types of business suffer in times of depression" (Br., 131). Before analyzing this further, cross-petitioners wish first to point out that the prudent-investment theory makes the utility investor a mere money lender, who is bound by maximum rates of return but not guaranteed *any* return. His rate of interest varies but the amount of principal involved, as measured by the dollar value when the investment is made, remains the same. The prudent-investment theory also destroys initiative in management. The Commission and complainant assert (Supplement, 77) that any increase in values is due to the community and, therefore, the utility should not have the benefit. They deny any credit to management for creative skill in the design and development of the properties of the utility. If at the time of the first investigation as to the feasibility of constructing cross-petitioners' pipeline, the prudent-investment theory had obtained, a quite different story might be presented on this record. Under the prudent-investment theory there would have been no reason for doing anything other than taking the available instrumentalities—taking the old heavy, expensive pipe; there might be no story on this record of the work and effort that resulted in the thin-walled, electric-welded pipe and the seamless pipe. The original cost might have been vastly higher. There would have been no inducement for progress and savings. The determination of values as of the time of construction breeds lack of efficiency and carelessness to the point just short of imprudence. It takes away the inducement for improvement, for cheaper original cost, and for advancement in whatever arts the enterprise employs. The prudent-investment theory would remove all incentive to do more than hold the *status quo*. It is submitted that the development and progress of this Country have been built upon the foundation of some

reward for creative skill, enterprise, and initiative. Particularly are creative skill, enterprise, and initiative needed in all of our undertakings at the present time. They are part of our essential means. Indeed, their preservation is one of our objectives.

Continuing with the proposition that the rule of *Smyth* v. *Ames* allows appreciation but protects the investor against depreciation, the Commission and complainant assert (Br., 131):

> "This is so because, in periods of deflation, regulatory agencies cannot undertake to fix values in strict conformity to *Smyth* v. *Ames* without throwing many utilities into receivership, and this would, of course, deprive consumers of necessary utility service."

The argument is refuted by *Smyth* v. *Ames*, itself. In that case the State of Nebraska on behalf of the public argued for the reproduction cost basis because it would result in a lower valuation than original cost. The statement by the Commission and complainant that to follow *Smyth* v. *Ames* in periods of deflation would throw many utilities into receivership is a mere unsupported generality.

The fallacy of the argument that the prudent-investment theory protects the investor against a fall in the general price level and gives him a constant return is pointed out by Dorety in *"The Function of Reproduction Cost in Public Utility Valuation and Rate Making"*, 37 Harvard Law Review 173, 183 (1923) as follows:

> "The discussion in the preceding paragraphs assumes that the utility constructed during a high cost period could continue to collect a return upon its original cost, notwithstanding a subsequent fall in the general price level. This assumption is of the essence of the original cost doctrine, which would induce the investment of capital in public utilities by assuring the investor a constant return upon his actual investment. However, the proponents of original cost suggest no public guaranty of such a return and, as a matter of fact, no utility could continue to sell its

service for substantially more than it would cost another company to duplicate such service. If it attempted to do so, it would soon find itself in competition with a new private or municipal plant. The forces of competition would tend to force rates in low price periods down to the cost of duplicating the service. The doctrine of original cost, therefore, would prevent the investor from ever earning a return on more than his original investment, but it would give him no assurance against a smaller return. He could lose by a fall in prices but could not gain by a rise. No prudent investor would trust his savings in such an enterprise. The proponents of this doctrine, therefore, face a dilemma. If they are right in assuming that a return on a high construction cost can be collected in a subsequent low price period, they will impose an intolerable burden upon the reduced capacity of the shipper for payment. If such a return cannot be collected, the utility will not be built, for the investor will not face the possibility of loss with no possibility of gain."

That there is no guarantee of a return on the original cost was pointed out by this Court in *Los Angeles Gas Co.* v. *R. R. Com.*, 289 U. S. 287, opinion by Mr. Chief Justice Hughes, where the Court said (p. 306):

"* * * while cost must be considered, the Court has held that it is not an exclusive or final test. The public have not underwritten the investment."

In Appendix D hereto (pp. 109-151, *infra*) are set out extracts from legal writers pointing out the soundness of the position of this Court and the fallacies of the prudent-investment theory. Among the principal reasons for the soundness of the "fair-value" rule are the following:

1. The prudent-investment doctrine would in theory force the rate payers to pay throughout the life of a property high returns on any property built during a period of high prices and inflated values.

2. If the high return could not, as a practical matter, be exacted from the public, investment in utilities would be stifled because the investor would face the possibility of loss with no possibility of gain.

3. That the high return may not, as a practical matter, be exacted from the public is apparent because (a) the public in a period of low prices would not pay abnormally high prices, and (b) competition of other services would require a low price. Imagine a gas utility, built in a period of inflation and therefore charging abnormally high prices, competing with an electric utility built in period of low prices and therefore charging low rates.

4. The prudent-investment theory is manifestly unfair to the investor who puts his money into a plant during a period of low prices. During a subsequent period of high prices, when the purchasing power of the dollar has gone down (and it may go down considerably), he still gets a return based on the *number* of dollars he put in.[6]

Two arguments against this proposition are advanced by the Commission and complainant (Supplement, 51-54). First, it is said that a large percentage of the capital of most public utilities is represented by fixed income-bearing securities, *i. e.*, bonds and preferred stock. There is no showing that this is true of *all* utilities, and it is clearly not a sound argument with respect to cross-petitioners. Here the same few investors own the bonds and common stock of cross-petitioners, each stockholder owning bonds in proportion to its stock (R. VII, p. 3781). The total

[6] In the brief presented herein by the National Association of Railroad and Utilities Commissioners, it is stated (p. 46):

> "• • • if we should come into a period of extreme inflation, when a rate base equal in dollars only to the original cost incurred prior to the period of inflation would be *manifestly unjust*, the commission would adopt means to make the rate base reflect the decreased value of the dollar, or it would permit reproduction cost estimates to be shown. If it failed to do this, the Court, upon review could grant relief."

This statement should be taken in connection with the assertions of the Commission and complainant herein that the "overwhelming weight of professional opinion" favors the prudent-investment theory (Br., 113). The National Association of Railroad and Utilities Commissioners embraces within its membership the members of the regulatory commissions and boards of the several States except Delaware, which has no regulatory commission, and New York (Motion of said Association, p. 1).

proportion of bonds to common stock means nothing as between the owners of cross-petitioners. Second, it is said that under *Smyth v. Ames* "rates are too high after a period of inflation and too low after a period of deflation" (Supplement, 54). This is another way of stating the argument that present rate regulation is slow. Perfection in the matter of speed may not have been realized, but it is believed that proper protection of constitutional rights should not be sacrificed for speed.

5. Under the fair-value rule of this Court, the investor's income is more stable. When prices go up and the purchasing power of the dollar goes down, the investor receives more dollars.

6. There is no merit in the suggestion that the fluctuations in the purchasing power of the dollar may be taken care of by a sliding scale for the rate of return. This would involve only a change of the language used with respect to the determination of fair value, and would continue the introduction of the same character and volume of proof as that which would be offered to show the reproduction cost new.

7. Fair value rewards efficiency in construction because the return is not limited to the actual amount spent.

8. The prudent-investment theory encourages inefficiency in construction to the point just short of imprudence.

9. There is no merit in the argument that the fair-value rule encourages the utility to keep old, outmoded equipment which would be costly to reproduce, rather than switch to new, better, and cheaper equipment. Competition forces such changes. The competition which most utilities face cannot be overemphasized. The competition between gas and electricity, coal, oil, etc. for heating, cooking, and other purposes is not imaginary.

10. The fair-value rule encourages utilities to build during low price periods, whereas the prudent-investment theory encourages building at peak prices.

11. The prudent-investment theory would cause social unrest. In a period of depression the public would not understand why it should pay a return to

utility investors on costs incurred during periods of inflation.

12. Most important of all, the prudent-investment theory would tie the courts to one set formula or dogma which manifestly would work injustice in particular cases. The fair-value rule avoids this difficulty. *Los Angeles Gas Co.* v. *R. R. Com.*, 289 U. S. 287, 305.

In the supplement to their brief the Commission and complainant principally attack the "fair value" rule on three alleged grounds: (1) the time necessary to make appraisals; (2) the unreliability of results of that method; and (3) the enormous expense involved. At the outset, it should be observed that time and expense are not primary factors where protection of constitutional rights is involved. It is hardly appropriate to argue that we should forget constitutional rights because to protect them would take time, energy, and funds.

As to the alleged time factor, Commission and complainant point out the number of years sometimes involved in rate cases. It is significant that the figures given are from the initiation of the regulatory proceedings to the conclusion of the final court decree (see Supplement, 22). The time consumed in court litigation can hardly be charged to the time for making reproduction cost new estimates. It is true that by the time the litigation in court is concluded that such estimates might be out of date, but time consumed in court is hardly an argument for doing away with courts. Time spent in litigation is not a proper basis for interpretation of the Constitution.

The Commission and complainant also refer (supplement, 22) to the length of time consumed in the *Illinois Bell Telephone* case and the *New York Telephone* case, as outlined by Mr. Justice Brandeis in his concurring opinion in *St. Joseph Stock Yards Co.* v. *U. S.*, 298 U. S. 38, 90. There is nothing to show what time would have been involved in these cases had the element of reproduction

cost new been eliminated. There is no showing as to how much time was spent on reproduction cost new in actual hearings before the commissions, in the presentation of evidence in court, or in the argument on review. If the element of reproduction cost new should be eliminated, there would still remain numerous issues such as rate of return, income, expenses, etc., which require time and effort. It is significant that in the case at bar the evidence respecting reproduction cost new was submitted in less than two days (R. VII, pp. 1191-1276). It should likewise be observed that evidence as to original cost may be lengthy, and argument of issues in respect to original cost may require lengthy presentation. The Commission and complainant would have it appear that the determination of original cost involves only opening the companies' books and taking out a figure. The original cost of many utilities in this Country is not available and is not shown by the companies' books. The determination of original cost in such instances would involve the very same or more difficult considerations than are involved in reproduction cost new. There might also be involved issues as to what is prudent and what is not prudent. Even where the books of the company show original cost, the issue as to what is and what is not prudent might require a great amount of time. The regulation of utility rates may be a difficult and troublesome administrative job for the commissions. The preservation of constitutional rights by the courts in rate cases is likewise sometimes difficult and troublesome. It does not appear, however, that the elimination of reproduction cost new and all other factors involved in the "fair value" rule and a substitution therefor of prudent investment will remove the difficulties and trouble. The time required for the settlement of disputes is always a difficulty in the functioning of the judicial processes. In this respect rate regulation does not stand alone. In many fields of law the time factor presents a

difficulty. When time is required for the proper solution of a problem, the necessary time must be spent. The suggestions of the Commission and complainant offer no panacea.

The same observations apply to the suggestion of the Commission and complainant that rate litigation is too expensive. The figures set out in the supplement to the brief of the Commission and complainant (p. 26, footnote 13) obviously are not applicable to all utilities or regulated concerns. What proof is there that the elimination of evidence as to reproduction cost new would solve the problem of expense? Other issues in a rate case, such as original cost, may involve tremendous expense. The prudent-investment theory is no cure-all for the expense of rate litigation. On pages 58-60 of their supplement the Commission and complainant refer to the expense of high priced legal, engineering, and accounting talent. The advocates of the prudent-investment theory seem to think that book cost can be arrived at by simply turning to the books of the company. Might not legal, engineering, and accounting talent be required for an inquiry into the books? The aid of legal, engineering, and accounting talent is clearly desirable in determination of rate disputes involving millions of dollars.

The third criticism of *Smyth* v. *Ames* is the unreliability of its results. Evidence of reproduction cost new does present difficulties, so does book cost, so does the question of prudence, so does any evidence of value; but in its use to form sound judgments in no case is the ease of unfairness a sound condemnation of fairness. Evens in *"Valuation in the Supreme Court,"* 30 Am. Bar Assoc. Journal 485, 488 (1930) well states:

> "The requirements of that decision (*Smyth* v. *Ames*) are that all competent evidence of value be received and that each bit of such evidence be given such consideration as under all the circumstances of the case under investigation is 'just and right.' *This is but*

the elemental rule as to receiving and weighing evidence in any litigation."

Evens continues (p. 488):

"It may be under the circumstances disclosed by the evidence in a particular case that the original cost less depreciation is a fair measure of present fair value. It may be, as the Supreme Court said in the Indianapolis Waterworks Company Case, that under certain conditions reproduction cost less depreciation furnishes a fair measure of value. It may be under the facts shown in one case a valuation for taxation purposes is important evidence of value and under the facts shown in another case such valuation has practically no probative worth. In other words, *Smyth* v. *Ames* does not require that a valuation be made by ascertaining value by means of various formulae, adding these values together and dividing by the number of component valuations in order to get an average which is called fair value. Neither does it attempt to say that the weight to be given to any one factor shall in all cases be in any definite ratio to any other factor. It recognizes that the weight which should be given to any evidence in reaching value varies as the conditions vary. It requires the consideration of all competent evidence but it requires the valuing tribunal to give to each piece of evidence such consideration, and only such consideration, as is 'just and right' under the facts in that case."

The criticism by the Commission and complainant, that valuation is sometimes a perplexing problem, applies to every field of law where values are involved. The difficulties in determining value in rate regulation are the same difficulties that are met in suits for the reasonable value of services rendered, in suits for goods sold and delivered, in suits for breach of warranty, in suits for damages for crops, buildings, etc. In such cases proof of value may be adduced. Usually it comes and must come from experts. Their testimony involves expense. They often disagree. Tribunals daily meet the problems in making determinations in respect to these matters where

witnesses disagree. There is no royal road to a determination of value.

On page 41 of their supplement the Commission and complainant speak of the "exactness" and "ease of application" of the prudent-investment theory. It seems to be assumed that original cost is easily ascertainable. In some instances this may be true but many public utility concerns are made up of units bought by the present owner. In respect to many of these units no one now knows the original cost. Even after original costs are ascertained there is much room for inexactness in determining what is or is not prudent.

On page 128 of their brief, the Commission and complainant assert:

> "It is significant, too, that practical experience in Massachusetts, California, and elsewhere shows that this method is just to the utilities, has attracted capital, and has secured adequate service."

There is nothing in this record and no means of taking judicial notice as to the justness to the utilities of the methods followed in Massachusetts, California, and elsewhere. In fact, Massachusetts has not followed the prudent-investment theory. The Commission there has held only that reproduction cost new is not the sole basis for fixing present fair value and that the weight to be given to prudent investment, reproduction cost new, etc., depends upon the facts of the particular case.[7]

With respect to cases from California, this Court has not relaxed the rule of *Smyth* v. *Ames* (see *Los Angeles Gas Corporation* v. *Railroad Commission*, 289 U. S. 287).

The many quotations from writers and commissions set out in Appendix A, pages 42-94, of the supplement to the Commission's brief, are in general restatements of the same points which are urged in the main brief of the Commission and complainant and in Sections I and II of the

[7] Northampton Gas Petition, P. U. R. 1915 A. 618, 626.

supplement; but cross-petitioners point out that they are not bound by the testimony of Chairman Cortelyou of the Consolidated Gas System, Vice-president Nickerson of the same company, and President Sloan of the New York Edison Company in another case, and that what is true with those companies is not necessarily true with cross-petitioners or other concerns (see supplement, 86-87).

Summary of Cross-Petitioners' Position With Respect to "Fair Value."

It is manifest that the prudent-investment theory offers no cure-all for rate regulation. That *present* value should be used rather than original cost is plain in view of the constantly changing purchasing power of the dollar. *Present fair value is nothing more than a translation of original cost into present day dollars.* The prudent-investment theory would bind the courts to a hard and fast formula which, as the National Association of Railroad and Utilities Commissioners say (Br., 46), would in some cases be "manifestly unjust." Cross-petitioners submit that the true and common sense basis for rate regulation has been consistently applied by this Court. In *Los Angeles Gas Co.* v. *Railroad Com.*, 289 U. S. 287, opinion by Chief Justice Hughes, this Court, in a thorough analysis of the problems, made it abundantly clear that the ascertainment of value in rate regulations

> "* * * is not a matter of formulas, but there must be a reasonable judgment having its basis in a proper consideration of all relevant facts" (p. 306).

The Court there also emphasized that the valuation must be made upon the particular facts in each case. At pages 307-308, the Court said:

> "* * * We have emphasized the danger in resting conclusions upon estimates of a conjectural character. We said, in *Minnesota Rates Cases, supra*, p. 452,—'The cost-of-reproduction method is of service in ascertaining the present value of the plant, when it is

reasonably applied and when the cost of reproducing the property may be ascertained with a proper degree of certainty. But it does not justify the acceptance of results which depend upon mere conjecture. It is fundamental that the judicial power to declare legislative action invalid upon constitutional grounds is to be exercised only in clear cases. The constitutional invalidity must be manifest and if it rests upon disputed questions of fact, the invalidating facts must be proved. And this is true of asserted value as of other facts.' The weight to be given to actual cost, to historical cost, and to cost of reproduction new, is to be determined in the light of the facts of the particular case. *McCardle* v. *Indianapolis Water Co., supra.*"

This test, it is submitted, is sound. In the case at bar it is plain that upon present value, the true constitutional test, the order of the Commission is confiscatory.

Respectfully submitted,

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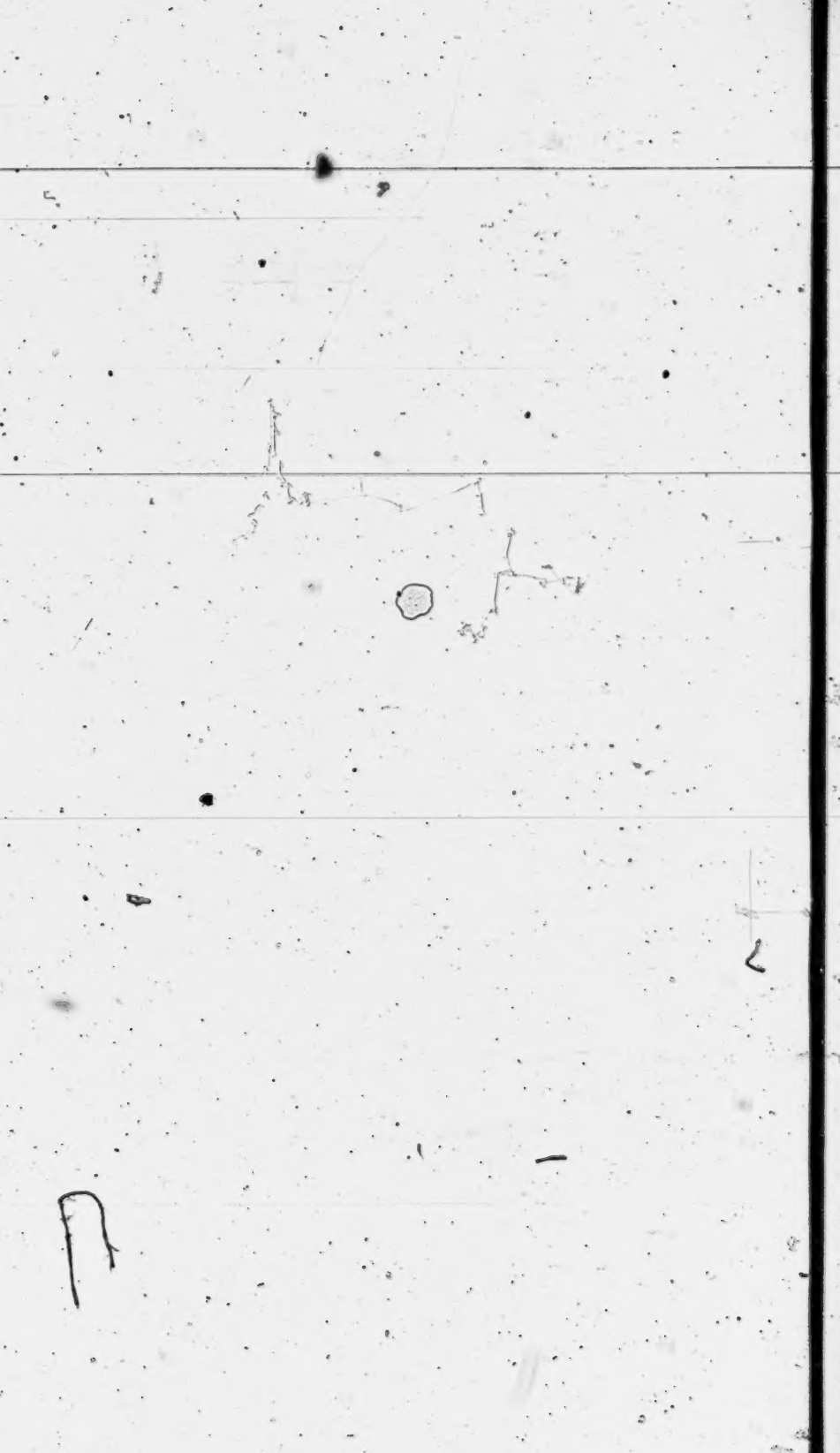
APPENDIX A

Table III. Computation of the Rate of Return on Net Investment After Amortization Reserve When a Return of 8% is Allowed on the Total Amount of the Investment Together with an Annual Amortization Allowance Computed on an 8% Sinking Fund Basis. Computations are Illustrated by Reference to an Investment of $1,000,000 Over a Ten Year Period.

A	B	C	D	E	F	G	H	I	J	K
				Amortization Reserve		Investment Less Reserve				
Year	Annual Allowance For Amortization On an 8% Sinking Fund Basis	Annual Interest Accrual On Amortization Reserve (8% of E)	Total Annual Addition to Amortization Reserve (B + C)	At First of Each Year	At End of Each Year	At First of Each Year	At End of Each Year (G — D)	8% on Total Investment (8% of $1,000,000)	8% on Total Investment Less Annual Interest Accrual On Amortization Reserve (I — C)	Rate of Return Net Investment (i. e., Investment Less Reserve) (J + G)
1.....	$ 69,029[#]	$ 0	$ 69,029	$ 0	$ 69,029	$1,000,000	$930,971	$80,000	$ 80,000	8.00%
2.....	69,029	5,523	74,552	69,029	143,581	930,971	856,419	80,000	74,477	8.00
3.....	69,029	11,487	80,516	143,581	224,097	856,419	775,903	80,000	68,513	8.00
4.....	69,029	17,929	86,958	224,097	311,055	775,903	688,945	80,000	62,071	8.00
5.....	69,029	24,885	93,914	311,055	404,969	688,945	595,031	80,000	55,115	8.00
6.....	69,029	32,398	101,427	404,969	506,396	595,031	493,604	80,000	47,602	8.00
7.....	69,029	40,512	109,541	506,396	615,937	493,604	384,063	80,000	39,488	8.00
8.....	69,029	49,275	118,304	615,937	734,241	384,063	265,759	80,000	30,725	8.00
9.....	69,029	58,739	127,768	734,241	862,009	265,759	137,991	80,000	21,261	8.00
10.....	69,029	68,962	137,991	862,009	1,000,000	137,991	-0-	80,000	11,038	8.00
Totals...	$690,290	$309,710	$1,000,000	xxxxxx	xxxxxx	xxxxxx	xxxxxx	$800,000	$490,290	8.00%*

[#]$69,029 set aside at the end of each year with interest at 8% compounded annually will amount to $1,000,000 at the end of ten years.
*Average, obtained by dividing the total of column J ($490,290) by the total of column G ($6,128,686).



APPENDIX B

Computation illustrating the fallacy in the assumptions underlying Sheet 3 of Exhibit 182 (Appendix A, supra, p. . . . .), prepared by Ostrander

	A Amortization Reserve	B Annual Unamortized Balance	C 8% of Unamortized Balance	D Allowance for Amortization and Return on Unamortized Balance at 8%	E Allowance Assumed in Appendix A, (supra, p. 103)	F Annual Deficit
First Year...	$100,000	$1,000,000	$80,000	$180,000	$149,029	$30,971
Second Year.	100,000	900,000	72,000	172,000	149,029	22,971
Third Year..	100,000	800,000	64,000	164,000	149,029	14,971
Fourth Year.	100,000	700,000	56,000	156,000	149,029	6,971
Fifth Year...	100,000	600,000	48,000	148,000	149,029	1,029
Sixth Year...	100,000	500,000	40,000	140,000	149,029	9,029
Seventh Year	100,000	400,000	32,000	132,000	149,029	17,029
Eighth Year.	100,000	300,000	24,000	124,000	149,029	25,029
Ninth Year..	100,000	200,000	16,000	116,000	149,029	33,029
Tenth Year..	100,000	100,000	8,000	108,000	149,029	41,029

APPENDIX C

		BLOCK 1				BLOCK 2					BLOCK 3				
		Unamortized Balance	Ret on Bal. 6½%	Total Requirements Amort. & Return	Interim Order Deficiency	Deficiency Accumulated	Unamortized Balance	Ret. on Bal. 6½%	Total Requirements Amort. & Return	Interim Order Deficiency	Deficiency Accumulated	Unamortized Balance	Ret. on Bal. 6½%	Total Requirements Amort. & Return	Interim Order Deficiency	Deficiency Accumulated
		From date of Act 7/1/38—16½ years					From date of Order Aug. 1, 1940			14 years 5 months		23 years—1/1/32 to 12/31/54				
mortization Base	84,341,218															
mortization Allowance —straight line		5,111,587					5,850,258					3,667,009				
ate Base	82,291,553															
mortization and Return Interim Order	6,395,180															
1932												82,291,553	5,348,951	9,015,960	2,620,780	2,620,780
1933												78,624,544	5,110,595	8,777,604	2,382,424	5,003,204
1934												74,957,535	4,872,240	8,539,249	2,144,069	7,147,273
1935												71,290,526	4,633,884	8,300,893	1,905,713	9,052,986
1936												67,623,517	4,395,529	8,062,538	1,667,358	10,720,344
1937												63,956,508	4,157,173	7,824,182	1,429,002	12,149,346
1938		82,291,553	2,674,475	5,230,270	2,032,680	2,032,680						60,289,499	3,918,817	7,585,826	1,190,646	13,339,992
1939		79,735,758	5,182,824	10,294,413	3,899,233	5,931,913						56,622,490	3,680,462	7,347,471	952,291	14,292,283
1940		74,624,169	4,850,571	9,962,160	3,566,980	9,498,893	82,291,553	2,228,731	4,666,340	2,001,660	2,001,660	52,955,481	3,442,106	7,109,115	713,935	15,006,218
1941		69,512,580	4,518,318	9,629,907	3,234,727	12,733,620	79,853,944	5,190,506	11,040,764	4,645,584	6,647,244	49,288,472	3,203,751	6,870,760	475,580	15,481,798
1942		64,400,991	4,186,064	9,297,653	2,902,473	15,636,093	74,003,686	4,810,240	10,660,498	4,265,318	10,912,562	45,621,463	2,965,395	6,632,404	237,224	15,719,022
1943		59,289,402	3,853,811	8,965,400	2,570,220	18,206,313	68,153,428	4,429,973	10,280,231	3,885,051	14,797,613	41,954,454	2,727,040	6,394,049	1,131	15,717,891
1944		54,177,813	3,521,558	8,633,147	2,237,967	20,444,280	62,303,170	4,049,706	9,899,964	3,504,784	18,302,397	38,287,445	2,488,684	6,155,693	239,487	15,478,404
1945		49,066,224	3,189,305	8,300,894	1,905,714	22,349,994	56,452,912	3,669,439	9,519,697	3,124,517	21,426,914	34,620,436	2,250,328	5,917,337	477,843	15,000,561
1946		43,954,635	2,857,051	7,[illegible]640	1,573,460	23,923,454	50,602,654	3,289,173	9,139,431	2,744,251	24,171,165	30,953,427	2,011,973	5,678,982	716,198	14,284,363
1947		38,843,046	2,524,798	7,[illegible]387	1,241,207	25,164,661	44,752,396	2,908,906	8,759,164	2,363,984	26,535,149	27,286,418	1,773,617	5,440,626	954,554	13,329,809
1948		33,731,457	2,192,545	7,304,134	908,954	26,073,615	38,902,138	2,528,639	8,378,897	1,983,717	28,518,866	23,619,409	1,535,262	5,202,271	1,192,909	12,136,900
1949		28,619,868	1,860,291	6,971,880	576,700	26,650,315	33,051,880	2,148,372	7,998,630	1,603,450	30,122,316	19,952,400	1,296,906	4,963,915	1,431,265	10,705,635
1950		23,508,279	1,528,038	6,639,627	244,447	26,894,762	27,201,622	1,768,105	7,618,363	1,223,183	31,345,499	16,285,391	1,058,550	4,725,559	1,869,621	9,036,014
1951		18,396,690	1,195,785	6,307,374	87,806	26,806,956	21,351,364	1,387,839	7,238,097	842,917	32,188,416	12,618,382	820,195	4,487,204	1,907,976	7,128,038
1952		13,285,101	863,532	5,975,121	420,059	26,386,897	15,501,106	1,007,572	6,857,830	462,650	32,651,066	8,951,373	581,839	4,248,848	2,146,332	4,981,706
1953		8,173,512	531,278	5,642,867	752,313	25,634,584	9,650,848	627,305	6,477,563	82,383	32,733,449	5,284,364	343,484	4,010,493	2,384,687	2,597,019
1954		3,061,923	199,025	5,310,614	1,084,566	24,550,018	3,800,590	747,038	6,097,296	297,884	32,435,565	1,617,355	105,128	3,772,137	2,623,043	26,024

APPENDIX D.

COMMENTS ON THE PRESENT FAIR VALUE RULE OF SMYTH V. AMES AND THE PRUDENT INVESTMENT THEORY:

Dorety, *"The Function of Reproduction Cost in Public Utility Valuation and Rate Making,"* 37 Harvard Law Rev. 173-191:

The legislative power to restrict rates charged for services of public utilities in this country has been firmly established since the decision of the United States Supreme Court in *Munn* v. *Illinois*.[1] And since the decision in *Reagan* v. *Farmers' Loan & Trust Co.*[2] it has been recognized that this power of restriction is not unlimited, and that rates cannot be reduced below a point sufficient to pay necessary operating expenses and, in addition, some element of profit as compensation for the use of the property. In *Smyth* v. *Ames*[3] it was held that the minimum profit to which the utility company was entitled, in addition to its operating expenses, was a fair return on the value of the property which the company employed for the public convenience. In that decision the court declared:

"And in order to ascertain that value, the original cost of construction, the amount expended in improvements, the amount and market value of its bonds and stocks, the present as compared with original cost of construction, the probable earning capacity of the property under particular rates prescribed by statute, and the sum required to meet operating expenses, are all matters for consideration, and are to be given such weight as may be just and right in each case. We do not say that there may not be other matters to be regarded in estimating the value of the prop-

[1] 94 U. S. 113 (1876).
[2] 154 U. S. 362 (1894).
[3] 169 U. S. 466 (1898).

erty. What the company is entitled to ask is a fair return upon the value of that which it employs for the public convenience."[4]

No measure of the weight to be given to any of the above factors in determining value was indicated, and it will be noted that no particular emphasis was placed upon the present cost of construction, although it was mentioned as one of the factors to be considered.

The twenty-five years which have followed have been fruitful in controversy as to the effect to be attributed to each of the factors named. The use, as a measure of value, of earning capacity, under past or existing rates or under rates prescribed by statute, has been criticized upon the ground that a constitutional guaranty of a fair return upon a value based upon present earnings would result in constitutional protection of present earnings, whatever they might be. The reasoning is frequently referred to as a "vicious circle." Market value of bonds and stocks is criticized because it likewise reflects present earnings and present rates and would tend to perpetuate them, and also because it is usually only a very small percentage of the total securities which is traded in by speculators upon the market, and the price does not accurately reflect the amount for which the entire property or the controlling interest in it would be bought or sold. The variation in the market quotations of railroad stocks from day to day is in itself a clear indication that such quotations do not determine value, since actual value could not fluctuate in this way. For these reasons there has been little sanction either in judicial decision or in economic principle for attributing any considerable weight to either of these factors.

The elimination of these factors from those mentioned in *Smyth* v. *Ames* brings us to a consideration of the weight to be accorded to "the present as compared with original

[4] P. 547.

cost of construction," in determining the amount upon which a utility is entitled to earn a fair return.

There has been an increasing controversy between those who contend that the "fair return" should be computed upon the present cost of construction or estimated present cost of reproducing the property, and those who advocate the use of original cost as a basis for the fair return. There has been some minor controversy as to whether present cost of construction, or "cost of reproduction" as it is generally called, should be based upon the cost of reproducing the identical plant or a substitute plant capable of performing the same service; and the proponents of original cost have advanced slightly different conceptions of that basis, which have been variously designated as original cost, historical cost, prudent investment, sacrifice of the investor, and so forth. The predominant issue, however, has been between those who advocate consideration of present labor and material costs entering into construction, whether of the same or a substitute plant, and those who would take into account the labor and material costs existing at the time of the original construction. Present costs are, in many instances, more than double the original costs, and the difference between a fair return based on original cost, and one based on present costs would, in the case of the railways of the United States, amount to millions of dollars annually. The question is, therefore, of tremendous financial importance. It is to this issue that particular attention is invited at this time.

The use of cost of reproduction probably has stronger judicial sanction than the use of original cost. Adjustments of rates by various public commissions, at a level sufficient to pay a fair return upon the estimated cost of reproducing the property, have been sustained as proper in a number of decisions by the Supreme Court of the

United States.[5] Such adjustments have been sustained even where the cost of reproduction has been estimated upon the basis of current wage and material costs substantially higher than those existing at the time of the original construction of the plant.[6] And a Commission order made without any consideration of present cost of reproduction and reducing rates to a level insufficient to pay a fair return on such cost has been held confiscatory and unconstitutional.[7] On the other hand, the use of reproduction cost as a basis for rate making is still subject to much uncertainty. The latest decision of the Supreme Court is to the effect that reproduction cost is not controlling but is only one of several factors to be considered, and that the "fair return" may be computed upon a sum substantially smaller than present cost of reproduction, provided only that reproduction cost is given due consideration.[8] The Interstate Commerce Commission, in its valuation of railways required by Section 19a of the Interstate Commerce Act, seems to have been basing its tentative findings largely upon cost of reproduction new, less depreciation.

The movement in favor of original cost has recently attracted nation-wide attention, on account of its advocacy by the National Conference on Valuation of American Railroads, called by Senator LaFollette and others in Chi-

[5] *Knoxville* v. *Knoxville Water Co.*, 212 U. S. 1 (1908); *Willcox* v. *Consolidated Gas Co.*, 212 U. S. 19 (1909); *Omaha* v. *Omaha Water Co.*, 218 U. S. 180 (1910); *The Minnesota Rate Cases*, 230 U. S. 352, 434 (1913); *Des Moines Gas Co.* v. *Des Moines*, 238 U. S. 153 (1915); *Denver* v. *Denver Union Water Co.*, 246 U. S. 178 (1918).

[6] *Brush Electric Co.* v. *Galveston*, 67 L. ed. 674, decided June 4, 1923; *Galveston Electric Co.* v. *City of Galveston*, 258 U. S. 388 (1922).

[7] *State of Missouri ex rel. Southwestern Bell Tel. Co.* v. *Public Service Comm. of Mo.*, 43 Sup. Ct. Rep. 544 (1923); *Bluefield Waterworks & Improvement Co.* v. *Public Service Comm. of W. Va.*, 43 Sup. Ct. Rep. 675 (1923).

[8] *Georgia Ry. & Power Co.* v. *Railroad Comm. of Ga.*, 43 Sup. Ct. Rep. 680 (1923).

cago, and also by reason of two dissenting opinions—one by Mr. Justice Brandeis in the case of *State of Missouri ex rel. Southwestern Bell Telephone Co.* v. *Public Service Commission of Missouri*,[9] the other by Mr. Commissioner Eastman in the final report of the value of the San Pedro, Los Angeles and Salt Lake Railroad.[10] In addition, there have been a number of magazine articles advocating the use of original cost as opposed to cost of reproduction.[11] Many unsound but plausible arguments advanced in support of this movement have, it is believed, escaped effective reply, and it is the purpose of this article to point out some of the objections to the use of original cost as a rate base and to defend the use of present costs. The discussion will be divided into two parts: first, a general statement of the function, and a defense of the use of reproduction cost in rate making and valuation; and second, a number of suggestions as to the application of the proposed process in particular valuation problems.

I.

The function of any cost of plant figure in the fixing of the rates may be simply illustrated in the case of a railroad built to serve a single shipper, such as a large coal or iron miner or the owner of a large timber tract. It is clear that in any negotiation with the promoter as to rates to be charged by such a railroad, the minimum would be computed at a sum sufficient to include reimbursement for operating expenses and interest at prevailing rates upon the cost of constructing the plant. In other words, rates

[9] *Supra.*

[10] 75 I. C. C. 463 (1923).

[11] See Donald R. Richberg, "A Permanent Basis for Rate Regulation," 31 Yale L. J. 263, 266, 279; Robert L. Hale, "The 'Physical Value' Fallacy in Rate Cases," 30 Yale L. J. 710, 720; Gerard C. Henderson, "Railway Valuation and the Courts," 33 Harv. L. Rev. 902, 1031; David Friday, "An Extension of Value Theory," 36 Quart. Jour. of Econ. 197.

would have to equal the total cost of producing the service, including the necessary cost of procuring capital, and it seems clear that in such a case the rate would be computed in terms of cost of service, rather than in terms of a fair return on value, or of compensation or rental for use of property of a predetermined value. It might also be noted, in passing, that if the traffic were so limited as to indicate probable exhaustion within a short period, such as ten years, the promoter would stipulate that the rates should include a factor for amortization of the capital, as well as for interest and operating expenses.

The illustration, however, affords no test of the issue between original investment and present cost of reproduction, since in this case they are the same. In order to test this issue let us suppose that our mine is in the vicinity of an old railroad, originally constructed years before for the purpose of logging a now exhausted tract of timber. Let us suppose that this old road is in physical condition equal in every respect to a new road and capable of rendering identical service, but that it was built when prices were low, and at half what a new road would now cost. This illustration brings into clear focus the question whether a fair return should be figured upon the basis of original cost, of present scrap value, or of present cost of reproduction. It is about as strong a case for the use of the smaller original cost, rather than the larger reproduction cost, as can well be imagined, and yet it is believed that there are many reasons which demonstrate conclusively that even here constitutional principles and economic laws require that rates be fixed at what would be the present cost of duplicating the service, and that they should produce interest upon the present cost of reproduction, as well as an amortization fund, if the traffic is limited. Some of these reasons follow.

1. The physical structure and the capacity for service being identical and the available traffic being the same in both cases, nothing but an artificial rate restriction can

produce a difference in the economic values of an old road and a new one. Under our constitutional principles, in the case of condemnation at least, the amount which an owner can be compelled to accept for the taking of his property cannot be made to depend on when or where he acquired that property or how much it cost him. The same principles would seem to apply when only the use of the property is devoted to the public service. The physical properties and the surrounding conditions of the old road and the new road being identical and the owners devoting identical properties to producing identical service, we know of no constitutional principle which should compel the one to accept a smaller compensation than the other. It is only by assuming that there is legislative power under the Constitution to compel the acceptance of lower rates in one case, that a lower economic value can be assumed. We know of no such constitutional power. In *The Minnesota Rate Cases*,[12] the court said:

"The making of a just return for the use of the property involves the recognition of its fair value if it be more than its cost. The property is held in private ownership and it is that property, and not the original cost of it, of which the owner may not be deprived without due process of law."

2. There is reason to assert that a public utility which occupies its field more or less to the exclusion of other similar companies, and which has taken private property under eminent domain and has received public franchises, should be subjected to the implied obligation of standing ready at all times to furnish its service as cheaply as another company might if permitted to enter the field. It is to be assumed that at any given time another company would be willing to enter the field, if unoccupied, and furnish the service at the present cost thereof, including interest on the present cost of a new plant, and amortization

[12] 230 U. S. 352, 454 (1913).

of the investment, when the circumstances warrant it. The fact that the original company made its investment at a period of high prices and perhaps before the service was justified would seem to be no reason why it should be permitted to charge prices at a later period in excess of those at which another company would then be willing to enter the field and furnish the service. On the other hand, even though the original company made its investment at a period of low prices, if it makes its present charges upon the basis of present cost, there is no hardship upon the public, so long as the rates are no higher than those which would be necessary to induce another company to enter the field. If the power of legislative restriction extends to the point of fixing charges at the present cost of duplicating the service, the reason and necessity for such restriction would seem to end at that point. It may well be argued that at that point the power of legislative restriction exhausts itself, and that below that point the utility should be as free as any other company to claim the protection of the Fourteenth Amendment in fixing the price at which it will or will not furnish service.

It has been argued that if value cannot be determined independently of rates, and if rates are to be fixed on a basis of cost of service, all constitutional questions as to depriving the owner of his property, or of a part of the so-called value of his property, are avoided, because the court does not make any effort to ascertain the value of the property, and the court does not take, by this rule, any value which may be claimed on any theory.[13] The conclusion drawn is that the court is as free to base rates upon original cost as upon any other basis. The suggestion that the value cannot be determined independently of the rates is to a large extent sound, and the argument that, in the fixing of his rates on the basis of original cost, the owner is thus not being deprived of any value may therefore

[13] Donald R. Richberg, *supra*, 31 Yale L. J. 263.

seem plausible. But it must be remembered that, irrespective of the value of the plant, the service which is rendered is a thing of value which, under the Fourteenth Amendment, the owner should be free to sell or to withhold, except to the extent that that freedom is restricted by the implied obligations assumed when the property is devoted to public use. If the extent of this implied obligation has been correctly stated above, that is, if it is limited to the duty of furnishing service at any time at the rates which would then be necessary to induce another company to furnish the service, it would follow that any attempt to compel the owner to furnish his service at lower rates than this would deprive him of the protection of the Fourteenth Amendment. If it is once admitted that a limit exists below which the capital cost factor in a rate cannot be reduced, the necessity of defining that limit at once arises. The reasoning of *Smyth* v. *Ames* affords no precise definition. Original cost is an accident which bears no necessary relation to the present value of the service. It does not even represent the sacrifice of the present owners, for they may have purchased their stock on a basis far below or far above the original cost of the property. The only limitation which is capable of precise definition and which also bears some relation to the present service is the present cost of duplicating that service.

3. If, in our hypothetical case, the traffic should require the construction of a new road in addition to the one in existence, and costing twice as much, although physically identical, so that there would be two roads, one new and one old, participating in the same service, it is scarcely conceivable that one road could be compelled to furnish service identical with that of the other at half the price. Even if constitutional principles permitted this, economic laws would forbid it. And if we suppose two mines in the same producing territory but sufficiently separated to require different railroads, one of them having an old road

in existence and the other requiring the construction of a new one, the two roads and the service rendered by them being otherwise identical and having the same reproduction cost, but being so located that they would not compete with each other, it is equally difficult to assume that either constitutional or economic principles would permit the imposition of higher rates against one shipper or would compel the acceptance of lower compensation by one railroad.

4. It is believed that the fixing of rates at the present cost of duplicating the service conforms more nearly to the economic principles governing return upon investments in other industries. In the case of a manufactured commodity for which there is a healthy demand, requiring the construction of new plants from time to time, the price will, under the play of competitive forces, tend to approximate the present cost of production, including interest upon what would be the present necessary investment in plant. It has been suggested by the opponents of the use of present cost of reproduction that such use would tend toward uncertainty and inequality of return, the return being greater in periods of high cost and lower in periods of low cost. But this is exactly what happens to the investor in other industries. If we are to assume equality of interest rates we should likewise assume equality of other conditions in order to place railroad investments upon a par with investments in other industries.

5. The equality or inequality of the return should be measured by its purchasing power rather than by the number of dollars. As construction costs and interest rates increase, the number of dollars and the return to the investor will increase, under our reasoning, but the purchasing power of each dollar will decrease. The reverse is true when construction costs decrease. Here the return in number of dollars would decrease but the value of each dollar would be greater. There would be an approximate stabilization of the purchasing power of the investor's return

similar to a like tendency existing in other industries. On the other hand, if the return is based upon original investment at current rates of interest, the number of dollars will remain more nearly equal, but the purchasing power of the investor's total compensation will be less in periods of high price levels. Instead of tending toward greater uncertainty and inequality of the investor's return, therefore, the use of reproduction cost would seem rather to tend to greater certainty and equality, at least in the purchasing power of his compensation, which is the vital thing.

6. It was suggested by Mr. Justice Brandeis in his opinion, dissenting from the reasoning of the majority in the *Southwestern Bell Telephone Company* case, that the use of present reproduction cost as a rate base may subject those making investments during high price periods to heavy losses due to shrinkage in prices and interest rates, and that on the other hand the use of present reproduction costs during a period of high prices might produce fantastic profits for those who had made investments in low price periods. This same thing, of course, is true of investments in other industries. This statement merely places railroad investments on a par with others. And what is the alternative? Suppose that a water or gas plant could normally be built for $1,000,000 and the money secured at 5%, making an annual capital charge of $50,000 per year. Suppose that an investor should find that construction of the plant at the peak costs prevailing in 1920 would cost $2,000,000 and that the money would cost 7% on thirty-year bonds, an annual charge of $140,000. If we understand the suggestion correctly, it is that the investor should be permitted to build the plant in 1920 and to fasten upon the consumers an annual charge of $140,000 per year for thirty years, to pay for a service which they could reproduce a few years later at an annual charge of $50,000. If this theory could be put into practice, it would afford a unique opportunity for investors. In no other known way could the investor

project the benefits of temporary high prices and high interest rates so far and so certainly into the future. The result would be to put an extraordinary premium on the construction of utility plants during peak price periods. On the other hand, the investor in utility construction during low price periods could realize none of the benefits from price increases which accrue to other investors, and at such times capital would consequently be withdrawn from public all of their additions and improvements at the highest price utility construction. Railroads would be tempted to make periods and at the highest interest rates instead of at the lowest. The result would necessarily be a tremendous economic waste and an ever-increasing burden upon the consumer. It is true that the alternative of fixing rates at the present cost of duplicating the service would tend to discourage investment during high price periods, but it is submitted that unnecessary investment during such periods should be discouraged. Nothing but the most necessary work should be done at excessive cost. And that such a rule would not go so far as to prevent necessary construction entirely is shown by the experience of recent years. Mr. Justice Brandeis himself points out that many heavy investments of this character were actually made at war-time construction costs, notwithstanding the fact that the fixing of rates on the basis of present reproduction cost was a general if not the prevailing practice.

7. The discussion in the preceding paragraphs assumes that the utility constructed during a high cost period could continue to collect a return upon its original cost, notwithstanding a subsequent fall in the general price level. This assumption is of the essence of the original cost doctrine, which would induce the investment of capital in public utilities by assuring the investor a constant return upon his actual investment. However, the proponents of original cost suggest no public guaranty of such a return and, as a matter of fact, no utility could continue to sell its service

for substantially more than it would cost another company to duplicate such service. If it attempted to do so, it would soon find itself in competition with a new private or municipal plant. The forces of competition would tend to force rates in low price periods down to the cost of duplicating the service. The doctrine of original cost, therefore, would prevent the investor from ever earning a return on more than his original investment, but it would give him no assurance against a smaller return. He could lose by a fall in prices but could not gain by a rise. No prudent investor would trust his savings in such an enterprice. The proponents of this doctrine, therefore, face a dilemma. If they are right in assuming that a return on a high construction cost can be collected in a subsequent low price period, they will impose an intolerable burden upon the reduced capacity of the shipper for payment. If such a return cannot be collected, the utility will not be built, for the investor will not face the possibility of loss with no possibility of gain.

8. Many units of the existing property may actually be salable for amounts far in excess of their cost. Many locomotives actually costing approximately twenty-five thousand dollars are salable today for twice that amount. Many tracts of land used for city terminals whose original purchase price was measured in thousands of dollars might today be sold for millions. The cost of leaving these units of property in the public service today is in nowise measured by their original cost. If, by selling today and investing the proceeds in some other way, the owner could secure a given amount of income, his present sacrifice and the present cost of devoting the property to public use are measured by the loss of that income, and not by interest upon the original investment in the property.

The foregoing reasoning would seem to require the use of reproduction cost rather than of original cost, if cost of service is to be controlling. And it seems clear that it must

be controlling. It has been said that a railroad rate to be lawful must not only be fair to the carrier but reasonable to the shipper; that is, that it must not exceed the value of the service and must not be exorbitant or unduly burdensome. If this means that the carrier may be compelled to render its service for something less than cost, the statement seems unsound. So long as the cost of service is not exceeded, it is believed that the resulting rate must be held reasonable even though it might seem tremendously exorbitant by any other measure. If we assume, for example, a railroad built into a mountain region primarily to haul out ore, and with a small volume of tonnage, such that the actual cost of the service, including operating expenses and interest upon the cost of the plant, might amount to $10 a ton, as compared with a usual cost of $1 per ton on similar commodities for similar distances on trunk line railroads, nevertheless the high rate based on cost would seem to be justified. It would cost the owner as much to produce his own transportation. If the supposititious ore is valuable enough to sustain a rate equal to the actual cost of moving it, such a rate cannot be complained of; and it is fair to assume that under these circumstances a legislative act fixing a rate at less than the cost of the service, even though much higher than customary rates for similar hauls, would be held to violate constitutional principles.

It might be, of course, that the margin between the cost of mining and the delivered market price of the ore would not permit of a transportation charge of $10 per ton, nor perhaps even in excess of $5 per ton, so that the maximum possible revenue might be not more than enough to pay interest on one-half of the cost of reproduction; and it may be argued that the foregoing reasoning would permit the carrier, even in such a case as this, to hold out for $10 per ton, which would prevent any movement of traffic and would virtually be permitting it to abandon its service. But this is no more true of our reasoning than of the reasoning of

the proponents of original cost as a rate base. Instances undoubtedly exist where the available traffic cannot be made to pay interest on original cost, and where to permit the carrier to hold out for such a return would involve permitting it to discontinue service.

It is believed, however, that such a conclusion does not necessarily follow from either line of reasoning. If the utmost revenue that the available traffic can be made to pay is sufficient to pay a fair return upon only half of the original cost or half of the reproduction cost of the railway, it must follow that the economic value of the railway will amount to only half of such cost, for economic value cannot normally exceed a capitalization of probable future earnings. This would be true if there were no constitutional or legislative restriction of rates, and certainly the restrictive power cannot increase the otherwise existing value. In the case of any carrier, the character of the territory served, or the competition of other transportation agencies, may be such that original construction was not and the reproduction would not be justified as an investment, and that the present value cannot exceed half of the cost. It would follow that such a plant could be condemned, and would normally be bought or sold for half of its construction cost. If the owners were unwilling to furnish service at rates which the traffic could bear, presumably another company would be willing to take over the property at its economic value and use it to duplicate or continue the existing service. To take the property over, by condemnation if necessary, would violate no constitutional principles, so long as actual value were paid in return. And if another company would presumably be willing to take over the plant at actual value and furnish service at the maximum rate that the traffic could bear, there would seem to be no departure from the foregoing reasoning in holding the existing company to the implied obligation of continuing to employ its existing plant with

its existing value in furnishing service at the same rate, even though such a rate were insufficient to pay interest on the cost of reproduction new. The carrier should be entitled to scrap its road if its earnings could not be made sufficient to pay at least its operating expenses and interest on the scrap value; but so long as the earnings exceed this minimum and so long as the carrier is not prevented from earning the maximum return that the available traffic could be made to pay, there would seem to be no departure from the principles advocated in this article, in compelling it to continue to render its service at the highest obtainable rates.

If the available traffic were of such character and volume that it would continue to move at rates equal to the full value of duplicating the service, including interest on the full cost of reproduction, we should have a very different case. The Constitution, under our reasoning, would then protect the rates and the resulting value, which would tend to approximate cost of reproduction, and it would then require the same capital investment to condemn the existing road as to build a new one. It would only be where the value, independently of legislative action and because of economic conditions, is less than the cost of reproduction, that the road could be condemned for less than such cost and that the service could be duplicated for less than interest on such cost.

It must be remembered that this discussion is concerned only with total return, and not with the rate per ton that the carrier may be entitled to. The rate per ton required to pay the necessary total net income would, of course, depend upon the number of tons to be transported. The existing rate might be yielding an inadequate total return due to the fact that it is so high as to throttle traffic. A lower rate might produce additional traffic sufficient to increase the total net income. Whether, in any given case, an increased total net return can most effectively be se-

cured by increasing or by decreasing the rate is a question of fact to be determined by the rate-making body, in the first instance, and by the courts upon review. This question, however, does not affect in any way the question under discussion in this article, as to the amount of total net income which the carrier is entitled to under the Constitution.

The rate-making process suggested here might be described in terms of court pleading, as follows: A complaint or declaration in a confiscation case, alleging that rates have been fixed below the cost of duplicating the service by means of a new plant, would state a *prima facie* cause of action and should be sustained upon demurrer. But an answer alleging that the rates fixed are the highest that can be collected from the available traffic and still permit it to move, or that they are such as to provide the largest total net income that it is possible for the road to earn, should be upheld as a valid defense.

Much of this reasoning which we have invoked in support of the use of present cost of reproduction of a new plant in fixing the capital cost factor in the rate level of an existing plant, would likewise require that the factor covering reimbursement for operating expenses should be based upon the operating expenses of a new plant. If the existing plant is to be free to fix its own rates, so long as they are not higher than those necessary to induce another company to furnish the service, and if the rates of a new and an old road, otherwise identical, are to be the same, it would follow that both the capital cost factor and the operating cost factor in the rate should be based upon the necessities of a new plant. It will become important to bear this in mind later when we consider the effect of depreciation, appreciation, and development costs upon rates and value.

This proposed process of determining rates at the cost of duplicating the service suggests that if the service could

be duplicated by means of a more efficient or a less expensive plant, both the capital cost factor and the operating expense factor in the rate should be limited to the necessities of such a substitute plant. This is a suggestion which Mr. Justice Brandeis makes in the last paragraph of his opinion in the *Southwestern Bell Telephone Company* case. But this does not affect the proposition that rates should be based upon the cost of duplicating the service, and that, in determining the capital cost factor, present rather than original construction costs should be computed, whether the service is to be duplicated by a plant identical with the existing plant or by a more economical substitute plant. In the absence of an affirmative showing that equally efficient service would be rendered by a more economical substitute, the presumption should be that the existing plant would have to be reproduced.

For the sake of simplicity, we have been discussing the issue between original and present costs as it would arise in the case of a single railroad with only one shipper. It is obvious, however, that the same principles would apply in the case of a larger railroad with a thousand or fifty thousand shippers. While the problem of apportioning the burden among the various shippers and fixing the individual rates on different commodities, necessary to produce the total return, would become more complicated, the economic and constitutional principles governing the total net income which the carrier should be entitled to earn would remain the same. Rates may be fixed for some commodities so as to yield a lower margin of profit, and the deficit may be made up by charging against other commodities somewhat more than their proportionate share of the total net return;[14] but in its total return the large road with many shippers should be as much entitled as the small one to the cost of duplicating the total service. And a showing that it is not receiving such return,

[14] See *Northern Pacific* v. *North Dakota*, 236 U. S. 585 (1915).

and that some portion of its traffic would continue to move at higher rates, should entitle it to an increase in such rates, unless the rate-making authorities should provide effectively for an increase in revenue from some other source.

It will be noted that in this discussion the use of reproduction cost has been advocated as a step in the process of determining cost of service and as a direct factor in establishing rates, rather than as a measure of or direct factor in the value of the property. In omitting any predetermination of "value" upon which a "fair return" is to be based and going direct to a determination of the cost of the service, the proposed process is similar to that advocated by the proponents of original cost. The only difference is that in determining the capital cost factor in the rate they would use the original capital cost, while we would use what would be the present capital cost of duplicating the service; and in determining the operating cost factor they would use present operating costs of the existing plant, while we would use estimated present operating costs of a new plant.

Under either of these processes the value of the plant would become a result of the rates rather than a basis for rates. And this is logical. Value is an economic fact not to be created, decreed, or modified by fiat of government. It can be modified by changing the rates, and the amount of value which will result from any assumed rate base can be estimated. But to attempt to decree or predetermine a value in advance of rates is to reverse the process of logic. If rates are established upon a basis of reproduction cost, value will tend to approximate such cost, but this will be through the operation of economic law and not because a certain figure has been decreed as value.

In suggesting that value be disregarded in rate making and that rates be based directly upon cost of reproduction new, as a factor in the cost of duplicating the service, the

fact should not be overlooked that Section 19a of the Interstate Commerce Act requires the Commission to find the *value* of each railroad, as well as its original cost, its cost of reproduction new and its cost of reproduction less depreciation. And the finding of value may be of great importance in connection with consolidation, the issue of securities, recapture of earnings, or other purposes, even though not used in rate making. Courts and commissions have been reluctant to define the value of a plant in terms of its economic equivalent, or to determine it by capitalization of its earning power, because it has been felt that it would be necessary to base such value upon earnings derived from rates which themselves are under investigation. However, the process of rate making which has been suggested above removes this difficulty and avoids the "vicious circle" of reasoning, which has been the principal obstacle to the finding of an economic value. Under this process earnings are to be computed at the highest rates that the traffic is able to pay, provided that such rates do not exceed the cost of duplicating the service. The value of the plant and business will be a capitalization of probable future earnings, under rates determined as above stated. Ordinarily under this process the value of a well-conceived railway or utility will tend to approximate its present reproduction cost, but where the traffic will not bear rates sufficient to pay interest on reproduction cost, value must necessarily be less.

This suggestion that we should abandon attempts at predeterminations of value to be used as factors in rate making, and substitute a rate adjustment based directly on the cost of duplicating the service, with a subsequent estimate of value to be computed from probable earnings, may seem at first glance to be a radical departure from the reasoning in *Smyth* v. *Ames* and from the process suggested in that decision, and even from the reasoning and process of later decisions in which the use of a straight

reproduction cost has been approved. But, as to the latter class of cases at least, it is believed that the departure is apparent rather than real and that our suggestion is in reality an accurate statement of the process actually approved in these decisions. Wherever reproduction cost has been used as an intermediate step in the determination of the rate level, the resulting finding has in fact been a finding as to the cost of duplicating the service. In approving this process the courts may have denominated the cost of reproduction figure used therein as "value" and may have stated that they were predetermining value as a basis for a fair return. As a matter of fact, however, the thing that they were predetermining was not value in any accurate sense of the word, and could not be made so by governmental decree. It was nothing more and nothing less than a determination of the amount of capital which a new company would require in order to duplicate the service. The determination of a "fair return" was nothing more nor less than an estimate of the cost which a new company would incur in securing such capital. The attempt to adjust this process to the reasoning in *Smyth* v. *Ames*, by denominating reproduction cost as "value" or as a factor in value, instead of recognizing it as a direct factor in the cost of duplicating the service and in rate making, is responsible for most of the criticisms and arguments which have been directed against the use of reproduction cost.

Mr. Justice Brandeis suggests that the use of reproduction cost would necessitate recurrent controversies as to the proper rate base and consequent value, which would result in great expense both direct and indirect to Government and carriers alike. We venture to suggest, however, that if cost of reproduction new is once determined as of any given date, it can readily be adapted to the construction costs prevailing at any other date by the application of an index figure or perhaps of different index

figures to different units of the property. And the actual original cost of subsequent additions and improvements may be varied by application of an index figure in the same manner, to show the cost of reproducing such additions and improvements as of a subsequent date * * *.

Brown, "*The Defects in Mr. Justice Brandeis' Theory of Prudent Investment as a Rate Base*," 12 Calif. Law Rev. 283-296:

There have recently been many attacks on "Cost of Reproduction" as a factor in rate making, but the attack that is of the most compelling interest is contained in the concurring opinion delivered by Mr. Justice Brandeis in *Southwestern Bell Telephone Company* v. *Public Service Commission of Missouri*.[1] If the Supreme Court ever changes the present law on the subject, the change will probably be largely due to his influence. That there is at least some possibility that the court will reverse itself may be surmised from the fact that Mr. Justice Holmes has already done so. In the case of *San Diego Land and Town Company* v. *Jasper*,[2] he said "It is no longer open to dispute that under the Constitution 'what the company is entitled to demand, * * * is a fair return on the reasonable value of the property at the time it is being used for the public.'" And in the principal case, he concurred in the following entirely opposite statement, to wit, "The thing devoted by the investor to the public use is not specific property, tangible and intangible, but capital embarked in the enterprise. * * * The Constitution does not guarantee to the utility the opportunity to earn a return on the value of all items of property used by the utility, or any of them."[3]

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[1] (1923) 262 U. S. 276, 67 L. Ed. 619, 43 Sup. Ct. Rep. 544.

[2] (1902) 189 U. S. 439, 442, 47 L. Ed. 892, 23 Sup. Ct. Rep. 571.

[3] 262 U. S. 276, 290.

And he also broke away from an established principle when he concurred with another departure of Mr. Justice Brandeis, which was stated as follows, "That part of the rule of *Smyth* v. *Ames* which fixes the rate of return deemed fair, at the percentage customarily paid on similar investments at the time of the rate hearing, also exposes the investor and the public to danger of serious injustice,"[4] with the conclusion that there should be adopted "the amount of the capital charge as the measure of the rate of return."[5] Dividends on stock and interest on bonds are treated alike by him.

I.

The defects I hope to demonstrate will first be discussed in connection with an example used by him to bring out one of his points. He says, "* * * if a plant had been built at times of low costs, at $1,000,000 and the capital had been raised to the extent of $750,000 by an issue at par of 5 per cent 30-year bonds and to the extent of $250,000 by stock at par, and ten years later the price level was 75 per cent higher and the interest rates 8 per cent, it would be a fantastic result to hold that a rate was confiscatory, unless it yielded 8 per cent on the then reproduction cost of $1,750,000. For that would yield an income of $140,000, which would give the bondholders $37,500; and to the holders of the $250,000 stock $102,500, a return of 41 per cent per annum."[6]

If a case involving these figures were before a Public Utilities Commission composed of so-called "progressives," it might and probably would fix rates that would limit the return to the stockholders to $12,500. And Mr. Justice Brandeis would not consider that these rates improperly deprived the stockholders of their property as $12,500

[4] 262 U. S. 276, 304.
[5] 262 U. S. 276, 306.
[6] 262 U. S. 276, 305.

is equal to a return of 5 per cent (the rate of return that was reasonable when the company was started) on $250,000 (the amount of cash originally put into the company by the stockholders). There is a vast difference between $12,500 and $102,500 but I hope to show that the former is at least as fantastic if not more so than the latter. For the sake of convenience, the time of low interest rates and prices when the company in the example was formed will be referred to as 1910 and the time of high interest rates and prices will be referred to as 1920.

In 1910 the stockholders started the company with $250,000 in money. This money, however, represented a certain purchasing power in clothes, houses, food or in anything else which they might purchase with it. And it is on this money that they should have the opportunity to earn a fair return. For the present I am not quarreling with the statement that it is on the capital prudently invested that the stockholders are entitled to earn a return, but I am quarreling with the idea that money can be used as a measure of that capital over any period of time. It is only necessary to glance at the index of commodity prices published by the Department of Labor to see this failing of money. Everyone is familiar with the large fluctuations that obtained in war-time but even the comparatively small fluctuations prior to the war were sufficiently large to destroy the sanctity of money as a measure of value. For example, from 76 (1913 prices equal 100) in 1892, the index dropped to 69 in two years and to 66 in two years more; from 69 in 1898 it rose abruptly to 80 in the same short period of two years; and from 85 in 1905 it rose to 94 again in two years.

A man who bought stock in a utility started in 1897, which brought him 6 per cent would discover, if prudent investment was used as the rate base and if money was used as the measure of prudent investment over the entire period, that in less than ten years he was really only

getting 4.27 per cent per annum on the money he put into the company because that money was worth about 30 per cent more than 1907 money. In short, when a stockholder has invested money of a certain quality, he ought to get his return in money of the same quality so that if the money we have to give him is poorer, we ought to give him more of it, and if it is better, we are foolish to give him as much.

Whether the rate of return should vary from that originally allowed presents a somewhat similar problem. It comes down to this question, "Have we any obligation to fix rates that are high enough to give the company an opportunity to earn enough to keep its stock at par,[7] assuming it was issued at par?" It seems to me that we have. If a man bought stock when a reasonable return on his investment was 4 per cent and then conditions changed so that a reasonable return on such stocks was 6 per cent, and we did not allow him the additional 2 per cent, his stock would drop from 100 to below 70. He will then have sustained a loss in the value of his capital of over 30 per cent.

Mr. Justice Brandeis seeks to make the stock of public utilities more of an investment and less of a speculation for, "In speculative enterprises the capital cost of money is always high."[8] Will not the stock be far less speculative if the purchaser knows that he can always sell for approximately the same price for which he bought and that his capital won't be subject to wide fluctuations with every change of interest rates? Mr. Justice Brandeis reasons that the stocks will be less of a speculation if we say to the investor at the time the company is started, "The prevailing rate of return on investments of this character is now 6 per cent. You will not have to worry about inter-

[7] By "par" is here meant the real rather than the money cost to the investor.

[8] 262 U. S. 276, 307.

est rates going up or down; we will give you the opportunity to earn 6 per cent no matter what happens to them." But if we say this we are overlooking the fact that to an investor the preservation of his principal is far more important than his income. We are in effect asking him to invest in interest and speculate in principal whereas if we adjust his return with the rise and fall in interest rates, he is speculating in interest and investing in principal. The speculation in interest is undesirable but it is the least undesirable of the two alternatives as it is so comparatively small. That this "speculation in principal" under constant interest rates is fact and not idle theory is substantiated by the course of the Liberty Bond market.[9] The return on these bonds represents practically pure interest in that it contains no allowance for risk and lack of marketability. Despite their tax exempt features, they sold so low in 1920 as to be on practically a 6 per cent basis; that is to say, if they were purchased in 1920 the 4¼ per cent interest plus the increase in value up to par at maturity apportioned partly to each year would bring a return of practically 6 per cent per annum on the purchase price. The bonds of the Third Liberty Loan sold to yield 6½ per cent and those of the Victory Loan to yield over 6.60 per cent. Since there was no question of their safety, the drop in their market value was the result of an increase in the prevailing interest rates. Stock issued at par yielding 4¼ per cent would drop to 70 if the prevailing return on similar securities rose to 6 per cent. And this 30 per cent drop in value would result from the change in interest rates alone.

Now to return to the original example of the company starting in business in 1910 with a capital of $1,000,000 as cited above. Under Mr. Justice Brandeis' theory, a man

[9] In connection with the importance to the investor of a principal having a stable value, the many demands that the government keep these bonds at par will be recalled.

who put $100 into the company for which he received one share of stock, would not be improperly deprived of his property if rates were fixed that gave the company an opportunity to earn $5 a share, equal to $12,500 on its entire stock capitalization. Out of this $5 a share, the company in most states would have to pay the present federal income tax of 12½ per cent or 62½¢ a share leaving $4.37½ available for dividends. A conservatively managed company would not pay out this entire amount and moreover the public would be the first to suffer if it did as every time the smallest extension of service was desired, more stock or bonds would have to be sold to raise the necessary capital. For the sake of simplicity, however, the most favorable conditions possible will be assumed, *i. e.*, that the company is operating in a state that allows the federal income tax to be deducted as an expense and that it was in a position to pay its entire earnings in dividends so that our investor who bought one share would receive $5 a year. In 1920 with rates on similar investments approximating 8 per cent his stock would sell for 62½ at the most and might well sell lower. He sells for 62½ and what does he get? He gets 62½ dollars that are worth only 58 per cent of the dollars that he put in since the price level has risen 75 per cent, or in other words out of an original investment of $100 he gets only $35.71 making a loss of 64.29 per cent of his capital, a result that he might well be entitled to call fantastic. And this result is not something that just might happen; it is a result that follows from Mr. Justice Brandeis' theory under the conditions most favorable to his theory just as surely as night follows day.

How then are we going to preserve the investor's property from any so thoroughgoing a loss in value? What is the lowest return we can give him without reducing the value of his investment? We must fix rates that will give the company the opportunity to earn $14 a share, $8 being the current rate of return and $6 more to compensate for

the 75 per cent rise in prices. The stock could then sell as high as 175 so that our original investor could sell his one share and get just as much value, just as much purchasing power in clothes, food, houses, etc., as he put in in 1910. He would then be, as he should be, in the same position as another investor who invested $175 of cheap money in 1920 (the same as $100 of 1910 money) and received the current return of 8 per cent or $14.

If it be asked why we should increase the money income of an investor in public utility stock upon a rise in prices and decrease it upon a fall in prices when we leave everyone else to shift for himself, the answer is that everyone else has had the opportunity to put his money into something that will participate in a general rise or fall in the price level. If, by controlling rates, we are going to control the natural play of economic forces which if left alone would cause a rise or fall in the price of public utility stocks with the rise or fall of the general price level,[10] we must not so use our control as to subject the investors to hardships not shared by everyone else.

The Interstate Commerce Commission is now engaged in making a valuation of the railroads for rate making purposes. The value found is that of 1914. It would be interesting to know what certain members of that body and

[10] Theoretically, if the price of everything, commodities, land, service, labor, etc., was suddenly doubled, the price of all stocks would double, as they represent in reality nothing but a part ownership of something which, according to our premise, has doubled in price. And despite the fact that stock prices are influenced by many diverse factors, that changes in them and changes in commodity prices are in *fact* coincident phenomena, can readily be seen from the charts of commodity prices and industrial stock averages published in the bulletins of the U. S. Department of Labor and the Harvard University Bureau of Economic Research. For example, both industrial stock averages and commodity prices were low in 1903 and 1904, both rose in 1905 to a high in 1906 and 1907, both fell in 1907 to a low in the latter part of 1907 and 1908, both rose in 1909, both fell in 1910 and 1911, both rose in 1912, and then both gradually fell off until the latter part of 1914 and the first part of 1915 when the enormous rise in both due to the war commenced.

others who do not favor a change in the value or rate base to correspond with the rise in the general price level would do if our currency had depreciated to the same extent as that of some of the European countries. Unless the rate base was changed, a $100 share of a public utility, under conditions similar to those in France for example, would be worth somewhere around $30, and under conditions similar to those in Germany, would be worth a good deal less than one cent.

If it be said that high interest rates are caused by high prices and that the very reason for their existence is to compensate for high prices and therefore if we adjust the stockholder's return for the former we need not do so for the latter, the answer is that in the first place high prices are not the cause of high interest rates and in the second place that the one does not in fact compensate the investor for the other. On the question of causation, the opinion of the economists is stated by Professor F. W. Taussig as follows, "Both rising interest and prices are in large degree due to a common cause,—the general fever of activity."[11] On the question of compensation, we have seen that adjustment for both factors is necessary in that although an adjustment for interest will keep stock at par, the price of the stock must be increased proportionately to prevent loss through increased prices.

If it be said that the theory set forth above will make every investor a stock market addict in that his public utility stock will vary widely in price, the obvious answer is that although it will vary in money price, it will not vary in real value at all. Only consider the feeling of safety and security that an investor will have if we provide a place where he can put his money, the purchasing power he has earned, where it will not literally melt. His only source of worry will be the efficiency of the management of the company in which he has invested because rates will be

[11] 1 Principles of Economics (2d ed.) 309.

fixed that will enable only a reasonably efficient management to earn the proper return. And he won't have the disagreeable experience that so many had who put good money into savings banks or high grade bonds where they thought it would be absolutely safe and discovered when they tried to use it in 1920 that a good half of it had vanished due to the violent fluctuations in the cost of living and interest rates.

In the $12,500 versus $102,500 argument then, our position is that $35,000 or $14 a share is the least we can give the stockholders. Anything less than $35,000 results in depriving them of their property. As we have seen, the return of $12,500 deprives them of 65 per cent of it. There will be some and may be many who think that this rather bitter pill for the investors is coated with enough due process of law to make it constitutional. However, those who do, will, I hope, agree that a rule that might result in a return of only $12,500 in the example cited makes public utility stock a speculation, exposes the investor to danger of great hardship unnecessarily, and exposes the public to the hardship of having to run its own utilities through failure to interest enough private capital.

Whether we should allow the stockholders the difference between $35,000 and $102,500 is a question which can best be determined by a consideration of the source of this additional profit. This $67,500 arose in the following two ways:

First. In 1910 the company borrowed $750,000 which due to the 75 per cent rise in prices was the equivalent of $1,312,500 in 1920. But unfortunately for the bondholders, the liability of the company to them remained at $750,000 no matter how much the value of dollars declined. The bondholders in effect hoped that prices would not change and were evidently willing to gamble that they would go down and not up. The difference between $1,312,500 and $750,000 is $562,500. The current rate of return, 8 per cent, of $562,500 is $45,000.

Second. The remaining $22,500 of the $67,500 is 3 per cent of $750,000, the amount of the bonded indebtedness; 3 per cent being the difference between 8 per cent, the current rate of return, and 5 per cent, the rate the bondholders bound themselves in advance to accept.

The $67,500 came then from a contract made by the company with the approval of the Public Service Commission, which turned out to be profitable. Borrowers of money always have and always will profit from a rise in prices and always have and always will lose from a fall in prices. And there is a like profit and loss in the rise and fall of interest rates. No rational decision can be made as to whether the company should have this profit or whether the public should receive it in lower rates until we realize that it is a real and not an illusory profit. The bondholders have most certainly suffered a real and in this case a large loss and somebody is going to gain through their loss.

It would seem reasonable to say that the company made the contract, not the public, and therefore if it should turn out to be profitable the company should have the benefit of it. There can be no doubt that the company should have the benefit of it if the company is to stand the loss that would arise if interest rates and prices should go below what they were at the time the money was borrowed. Mr. Justice Brandeis argues that, "Money required to establish in 1920 many necessary plants has cost the utility 10 per cent on 30-year bonds. These long-time securities, issued to raise needed capital, will in 1930 and thereafter continue to bear the extra high rates of interest, which it was necessary to offer in 1920 in order to secure the required capital. The prevailing rate for such investments may in 1930 be only * * * 6 per cent. * * * A rule which limits the guaranteed rate of return on utility investments to that which may prevail at the time of the rate hearing, may fall far short of the capital charge then

resting upon the company",[12] so that the company would not be able to stand the loss but would be forced into bankruptcy even though the stockholders sacrificed their entire return. In practice, however, no such difficulty would be encountered, as the company could redeem the bonds and refund the debt at a lower rate of interest. A company that would issue long-term non-callable bonds at such a high rate of interest ought to stand the attendant loss.

If we shift to the public the benefits and burdens of contracts with lenders, we are in effect saying that the public is the real contracting party. There is a good deal to be said for this view, e. g., it might be argued that utilities are often forced to make extensions by the Public Service Commission so that their return should not be affected by the outcome of a contract they were forced to make in order to raise the required capital, that utilities can only issue bonds with the approval of the Commission, and that the starting of a public utility should be governed only by the public need and not by the judgment of its promoters on whether prices and interest rates are low.

However, it does not seem to me that it matters so much which view prevails as that we realize that if we do not give the company the benefit of contracts it makes with lenders that turn out favorably, we are inevitably forced into the position of saying that the public is the real contracting party so that the Public Service Commission must be the manager of all utility financing and the public must stand the loss from unfavorable contracts made with lenders.

II.

If we could adopt prudent investment as the rate base without our action having any other effect on public utility law, we might go ahead and do so comparatively light-

[12] 262 U. S. 276, 305.

heartedly. But our action would have a result which I think is unavoidable and which has such far-reaching consequences that we ought to devote considerable thought to its desirability before proceeding.

As the federal Constitution prevents us from taking public utility property from its owner without just compensation, so does it prevent us from regulating the use of such property in such a way as to have the same effect. In other words it guarantees to the owner the opportunity of earning a fair return on his property. But Mr. Justice Brandeis says, "The thing devoted by the investor to the public use is not specific property, * * * but capital embarked in the enterprise."[13] He surely does not mean to say that the wires of a telephone company, the tracks of a railroad, are not devoted to a public use. They are the parts of a public utility that are most apparently so devoted, and that being so, if the company owns them, it, under the Constitution, is entitled to the opportunity to earn a fair return on them. So that the only way we can avoid giving the company a return on the specific property and can avoid the conclusion that, "If the property * * * has increased in value since it was acquired, the company is entitled to the benefit of such increase",[14] is to decide that the company is *not* the *real owner* of the property,—to decide that the company owned the money it put into the plant and devoted that money to the public use when it applied it to the development of public utility properties, thus obtaining a sort of license to operate them; and that the public must under the Constitution pay the company for its services in connection with these properties an amount sufficient to yield a fair return on the money devoted by the company to the public use. In an early California case this proposition was stated as follows—"* * * it is not the water or the dis-

[13] 262 U. S. 276, 290.

[14] *Willcox* v. *Consolidated Gas Co.* (1909) 212 U. S. 19, 52, 53 L. Ed. 382, 29 Sup. Ct. Rep. 192.

tributing works which the company may be said to own, and the value of which is to be ascertained. They were acquired and contributed for the use of the public; the public may be said to be the real owner, and the company only the agent of the public to administer their use."[15] For the money which the company has expended for the public benefit, it is to receive a reasonable and no more than a reasonable reward.

If we take as our premise that the public is the owner of the property, we must conclude that the company is only entitled to a return on the money used to buy the property; and vice versa we can not use prudent investment as a rate base and avoid the necessary implication that the company does not own the property.

Mr. Justice Brandeis says, "The constitution does not guarantee to the utility the opportunity to earn a return on the value of all items of property used by the utility, or any of them,"[16] which is naturally true if the company is not the real owner of the property but which seems to me absolutely untrue if the company is the real owner. He does not appear to have given the question of who is the real owner much consideration—probably because he does not think the adoption of prudent investment as the rate base has any such result as is herein claimed—but to have more or less assumed that the company is the owner. He says, "The owner is at liberty in the absence of controlling statutory provision, to withdraw his property from the public service, and if he does so, may obtain for it exchange value."[17]

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[15] *San Diego Water Co.* v. *San Diego* (1898) 118 Cal. 556, 570, 50 Pac. 633. This language was approved in *In re North Coast Water Co.* (1913) 3 Cal. R. R. Com. Dec. 962, and in other decisions of the Railroad Commission, but has been repudiated by the California Supreme Court, *Pac. Tel. & Tel. Co.* v. *Eshelman* (1913) 166 Cal. 640, 655, 137 Pac. 1119.

[16] 262 U. S. 276, 290.

[17] 262 U. S. 276, 290.

It is true that the Supreme Court has consistently held that the company owns the property it operates as opposed to the pronouncement quoted from the early California case. And this holding has been affirmed in the face of the fact that public utilities have the power of eminent domain and that most of them are controlled in the following six major ways beside many minor ways: (1) as to rates, (2) and consequently as to price obtainable on a sale to someone else willing to carry on the service, (3) as to whom such a sale may be made, (4) as to the manner in which the property is to be used (schedules, safety devices, and regulations for the convenience of the public), (5) as to what part of the public the utility has undertaken to serve (*e.g.*, extensions by gas and electric companies to meet the demands of new customers) and (6) in that the state may at any time take over the operation of the property.

Our inquiry being, "Who is the real owner of the property?", what then are the attributes of ownership remaining in the company? It has the bare legal title but "ownership * * * implies something more than a bare legal title";[18] its right to possession is extremely limited and surrounded by all manner of regulations and moreover little as it is it may be taken away by the state at any time. The only real attributes of ownership left that are of value are (1) the right to withdraw the property from public service and (2) the right to receive an increased return on the property so long as it is left in the public service if an "increase in its value" can be shown. It is not clear to me whether Mr. Justice Brandeis intended the statement that "The owner is at liberty, in the absence of controlling statutory provision, to withdraw his property from the public service"[19] as an argument for his position that the company is the owner. That is why I

[18] *Hyde* v. *Shine* (1905) 199 U. S. 62, 82, 50 L. Ed. 90, 25 Sup. Ct. Rep. 760.

[19] 262 U. S. 276, 290.

did not include "withdrawal from public service" in the list of ways in which utilities are controlled, but it should be in that list. There are such "controlling statutory provisions" in practically every state in the Union and the Federal Government exercises just such control over all the railroads engaged in interstate commerce.[20] So that if we establish prudent investment as the rate base and thus take from the company the only remaining attribute of ownership that is of any moment, to wit, the right to benefit from an "increase in value" of the property, there is nothing left of the ownership by the company but a vacuum and we must again reach the conclusion that the public is the real owner of the property.

My reason for putting the phrase "increase in value" in quotation marks is that I do not want to accept any responsibility for it. As has been well pointed out,[21] the statement quoted from *Willcox* v. *Consolidated Gas Company*,[22] has, if we look at the words alone, little or no meaning. Briefly, the argument is as follows: Value means selling price which is dependent on earning power which is dependent on rates so that the value of public utility property is at any particular time the capitalization of the earning power under the rates in force at that particular time. If we base rates on value, we encounter the well known vicious circle and there would never be any justification for changing rates since at any particular time no matter how much the value of the property had changed, the rates then in force would be yielding a fair return on that value. This argument, however, avoids the real problem which the court made an effort to solve even

[20] See Transportation Act, Feb. 28, 1920, ch. 91, sec. 402, par. 18; 41 U. S. Stats. at L. 456, 477; Fed. Stat. Ann. (1920 Supp.) 72, 98.

[21] See Robert L. Hale, The "Physical Value" in Rate Cases, 30 Yale Law Journal, 710; and Donald Richberg, A Permanent Basis for Rate Regulation, 31 Yale Law Journal, 263.

[22] *Supra*, n. 14.

though it chose its words unfortunately. This real problem will appear from the following illustration.

A gas and electric company constructs a plant for $1,000,000 in a thriving small town, having first obtained a certificate of public convenience and necessity from the Public Service Commission. We will assume that it is the policy of the commission to allow a return of 8 per cent and since $1,000,000 would be the rate base under any known rule, the company would earn $80,000 for the first year or so. The population of the town then dwindles away and business enterprises diminish to such an extent that surrounding real estate similar in all respects to that on which the plant is located falls in value 50 per cent. To make matters worse, new machines for the generation of power have been invented that can be constructed at a greatly reduced cost with the net result that a plant that would render identical service could be constructed for $600,000. It is true that the value of the utility will not decrease if rates are maintained by the Commission at a level sufficiently high to yield a net income of $80,000. But if it were not for the Commission, the value would soon decrease as it would not be long before the company would be undersold by a new company. The new company would only require an income of $48,000 to give it 8 per cent on its investment so that the town is paying $32,000 a year more than the service is reasonably worth, $32,000 a year more than it would have to pay if it should construct its own gas and electric plant. $32,000 a year capitalized at 8 per cent means a capital loss of $400,000.

Who is to stand this loss? If this case should come before the judges that decided *Willcox* v. *Consolidated Gas Company*,[23] they should not say that the property has decreased in value, since it most evidently has not if earnings are maintained at $80,000 a year, but they should say that if we do not decrease rates the town will suffer

[23] *Supra*, n. 14.

a large loss as it will be paying the company a return on antiquated expensive machinery and on land priced twice as high as the rest of the land similarly situated. They should then choose the only reasonable way of deciding whether the town is to stand this loss or whether the company is to stand it through a reduction in rates, that is, they should decide who is the real owner of the land and machinery in question.

What is contended for is recognition of the importance of this question of ownership. If we answer it after a careful consideration of all the issues involved, many of the most perplexing public utility problems are automatically answered for us and unless we answer it, we can not form a logical consistent policy that will form the basis for solving new problems as they arise.

A very good example of what appears to me an inconsistency arising from a failure to ask and answer it can be seen in the opinion of Mr. Justice Brandeis. To the statement that the federal Constitution guarantees to the utility the opportunity to earn a fair return on the capital prudently invested, he adds in a note, "Except that rates may in no event be prohibitive, exorbitant or unduly burdensome to the public."[24] This statement is not only inconsistent and wholly unfair to the investors but it is destructive of the great advantages of definiteness and stability that are inherent in prudent investment as a rate base. In as much as the doctrine of prudent investment as the rate base prevents investors from making any profit over and above a reasonable return, it is unfair to inflict upon them the chance of a loss other than one caused by inefficiency in operation. If rates may be lowered on a showing that they are unduly burdensome, will not the representatives of the public try to prove that fact in every rate hearing and thus inject into those hearings the speculative element that Mr. Justice Brandeis

[24] 262 U. S. 276, 290, note 2.

has been trying to remove? And how are we going to tell if a rate is unduly burdensome? How can a rate be so if it only yields a fair return on a prudent investment that the Public Service Commission has said was required by the convenience and necessity of the public? The only way left open in which to prove an undue burden is to show that the rates are higher than rates in comparable cities or higher than necessary to yield a reasonable return on the amount for which a plant could be constructed under conditions prevailing at the time of the hearing. And here we are right back, in either case, to cost of reproduction which Mr. Justice Brandeis is so desirous of avoiding. Only now if cost of reproduction is greater than the original prudent investment we say that rates are not to be increased, and if cost of reproduction is less than original prudent investment we say that rates must be lowered because they are unduly burdensome. Aside from the fact that such a result is unfair and would make rate hearings speculative, it would defeat its own ends, for the construction of our public utilities is by no means finished, and future investors would refuse to put in their money unless they had a guarantee of higher returns to compensate them for the speculation in losses without any speculation in profits.

Hanft, *"Control of Electric Rates,"* N. C. Law Rev. 289, 305-308:

COST OF REPRODUCTION.

Those who support the position of the United States Supreme Court that cost of reproduction must be given weight in determining value, or who approve the practice of some commissions in making it the measure of value, urge:

1. Cost of reproduction is founded on sounder legal logic. If the utility does not receive a fair return on the

fair value of its property, then there is confiscation, and property has been taken without due process of law. What property? The property as it now stands, not money invested prudently or otherwise in the past.

2. When price levels rise, and fall, values, including values of industrial plants, rise and fall. Property rarely remains worth exactly what was invested in it. To make an exception of public utility property would mean maladjustment of utilities in the normal industrial order. Some of the points listed separately below are aspects of this general idea.

3. The return to utility owners is really more stable under cost of reproduction than it would be under prudent investment. Under the latter theory, if accompanied by a fixed rate of return on the fixed investment, the utility owner receives during high price levels the same number of dollars he receives during low price levels. But at high price levels he can buy much less with each dollar. He is poorer despite his fixed income. Under cost of reproduction he receives more dollars when prices are up and more dollars are required to give him the same amount of food, clothing, etc.[73] Of course, prudent investment could be accompanied by a sliding rate of return, going up or down with the price level. But this would merely mean casting out the legion of devils that now inhabit the value problem, and allowing them to enter into the rate of return.

4. Cost of reproduction rewards efficiency in construction, since the utility receives a return on what it would reasonably cost to reproduce the utility, and the return is not limited to what actually was spent building it. On

[73] The catch in this argument for cost of reproduction lies in the fact that most utility capital is contributed by bondholders, and their income is fixed regardless of the valuation allowed on the utility property. The fluctuations under cost of reproduction are absorbed by the stockholders. See text argument 4 under prudent investment.

the other hand, under the investment theory if the owners exercised extraordinary efficiency and built a plant which normally cost $100,000 for only $90,000, they would receive no advantage, as their return would be limited to the $90,000 invested. In short, under prudent investment there would be a falling off of efficiency to the point just short of wastefulness such as to brand the investment as imprudent.

5. Similarly, cost of reproduction induces utilities to build at low price levels, whereas prudent investment would impose no penalty on building at high price levels, since in any event a return would be allowed on the higher investment.

6. Assume a fixed return on a definite amount, namely the amount prudently invested, is given. Then assume the price level rises. Utility rates would be low as compared with general prices since utility rates would not have advanced. The result would be an abnormal stimulation in demand for the unnaturally cheap utility service, with attendant unnatural overexpansion of utility plants, and that at a time when the expansion would be at higher costs. The abnormal overexpansion would saddle high investments on utilities on which investments consumers would have to pay a return. Then when prices fall off, returns on these inflated investments would have to be paid, with the result that utility rates would be abnormally high compared with other prices, which would produce an abnormal contraction of demand. This would result in necessity for still higher rates to pay the constant return, and the higher rates would cause demand to dwindle further, etc. An abnormal idleness of utility plants and a cessation of expansion would ensue. Utility regulation would thus become a handicap to the industrial order because utilities would expand unnaturally during high price periods, thus

tending to heighten booms, and contract abnormally during low price periods, thereby deepening depressions.[74]

7. Public opinion would defeat the operation of prudent investment. If a utility were built largely during boom times, and then the public were obliged during an ensuing depression to pay returns on the inflated investment, a political hue and cry would be raised against the utilities. The people would fail to see why utility investors should continue to enjoy returns on boom time values while the property of everyone else dwindled in value. This argument is solidly founded on human nature. During depressions, when prudent investment would result in relatively high utility rates, the public is most likely to challenge the prices it pays to utilities, just as it challenges taxes and all other necessary expenditures. Conversely, during booms, when cost of reproduction results in high returns, the public, thriving with the boom times, pays less attention to expenditures. It is in a tolerant mood and careless of costs.

If it can be avoided regulation should not take utilities from the scheme of things which people acquainted with the fortunes of ordinary business understand.

8. Rates are not uncommonly set separately for each

[74] This argument can be answered in part by saying that utility rates depend more on operating expenses than on return to the company, and operating expenses would fluctuate normally though the return were fixed. It may be further said that electrical utilities furnish a service which is essential, hence will be demanded regardless of price. This is but partly true. Only a small portion of the sales of electricity are free from competition. Electric power must compete with coal, electricity for cooking must compete with gas and other fuels, etc. Further, if electric rates are abnormally high, the amount of consumption per customer will decrease. One may eat his bread untoasted if electricity is expensive. That demand may decrease sharply during depressions, notwithstanding the fact that electricity is "essential," is shown in N. C. Corp. Comm. Rep. 1931-32, XVII, where it is pointed out that mills, factories and machine shops which normally consume electric power were shut down or running part time. One light and power company reported the loss of 2,869 customers in six months.

municipality served, on the basis of the property used to serve that municipality. When this is done, then under prudent investment if the plant in one municipality were built during high prices, and a similar plant in a neighboring municipality were built during low prices, the rates in the second municipality would be permanently lower than those in the first, thus giving the second an advantage over the first in seeking new citizens and industries.